MAY, 1956 • 20c

Better Farming Methods

For County Agents, Vo-Ag Teachers, Soil Conservationists, and Extension Specialists

Don't Miss These Stories!

Schain Detergent Butterfat Test . . . page 70

Why Not a National Farm Safety Program? . . . page 22

Weed Control

Three points overcome farmer obstacles to chemical weed control.

See page 18

Salaries

A summary of salary dollars in the field for use by ag leaders.

See page 54

.....	7730	5200	5278
lda.....	10596	6360	6000
gia.....	9612	3540	8768
na.....	9096	4016	5407
.....			5175
lana	7500	4900	6208
chusetts ..	8000	5500	5900
an.....	6660	4140	6851
ota	8500	5200	
ippi	7000	4320	6429
i	7230	4100	5494
.....	6800	3800	5093
.....	6550	4200	5305
.....	7300	4300	5188
ey	6300	5100	5398
co	9870	6270	5645
.....	6420	4620	9030
lina...	9020	5000	5450
	8230		6160

Plan, Prepare, Penetrate

Do you have your summer vo-ag program planned? . . . see page 60

PROFESSIONAL MAGAZINE for Leaders who TRAIN and ADVISE Farmers

POWER COMMAND

IT'S ALL HERE IN THE...

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Farmers everywhere will benefit from *Power Command* . . . the integration of the advanced Ferguson System with 4-Way Work Control and other Ferguson *firsts* to provide complete and instant mastery over tractor and implement operation.

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Just the right size for practical class and farm seed testing. Use it for classroom demonstrations—have students bring seed samples from home. Temperature and humidity accurately controlled. Foolproof operation. Guaranteed. So fast, some seeds sprout in less than 24 hours, yet it stimulates field conditions to meet USDA requirements. Helps teach farmers to test all seeds to avoid risking a year's income. Saves extravagant over-planting of costly seed just to "get a stand." Made of aluminum, 13x9x5", holds six 4" Kimpak squares to test a large variety of seed in a short time. Makes a splendid plant starter, too.

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Beats every spraying need. Handles all pesticides and disinfectants at 3 gal. per min. Built for easy use, service and accessibility.

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Silk finish Yacht Manila. Extra hard lay. 35 ft. long Horn loop. Perfectly balanced; beautiful smooth silk finish. Solid or quick-release honda. Shpg wt 3 lb.

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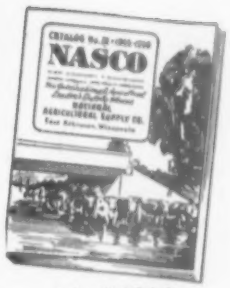

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Scientifically designed by Garver electronics engineers, the "Super" series represents the ultimate in Babcock testers. Garver "Supers" have everything, and they duplicate or exceed the performance of testers costing much more.

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Outstanding features include:

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Dual switches for motor and heater
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"Visiscope", the unique electric speed indicator, the most accurate known.

Control units and switches are housed in heavy cast aluminum box atop tester lid. All models are wired for 110-120 volts, 60 cycles (other voltages and frequencies available at slight extra cost) and operate by a single cord. Hand and combination hand-electric models also available. Sizes from 8 to 58 bottles for 6" or 9" glassware. Each unit guaranteed.

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or C384 stainless model ..... ea $3.95

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LaMOTTE SOIL TEST KITS HELP INCREASE YIELDS

The most widely used LaMotte Combination Soil Testing Set is the Standard 4-set model described here. This unit contains tests for pH (soil acidity), nitrate nitrogen, available phosphorus, and available potash. Reagents, glassware and color charts for each test are contained in individual racks which may be removed from the set and located on the work table at the convenience of the operator.

Order F117-T-1004 Price complete $39.85

LaMotte Standard with Calcium

Similar to above; has in addition test for Replaceable Calcium. All necessary reagents, glassware, color charts, and instructions.

Order X24-T-1005 Price complete $46.60

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Order F142-1001-LK Price complete $7.50

For a full line of soil test kits, see pp. 138-143, NASCO Catalog No. 31

National Agricultural Supply Company

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Jasper Tweed

"Corn plaster, eh? You city folks certainly have a great sense of humor."

Coming Events

May 3-4—5th National Land Judging School and Contest, State Fairgrounds, Oklahoma City, Okla.

May 7-9—Minnesota FFA Convention, University Farm, St. Paul, Minn.

May 23-25—American Feed Manufacturers' Association Convention, Morrison Hotel, Chicago.

June 4-23—Central Regional Extension Summer School, University of Wisconsin, Madison, Wis.

June 11-15—Florida State FFA Convention, Peabody Auditorium, Daytona Beach, Fla.

June 11-30—Negro Regional Extension Summer School, Prairie View A & M College, Prairie View, Tex.

June 12-15—Flock Selection and Pullorum Testing School, Iowa State College, Ames, Ia.

June 17-20—Annual Meeting, American Society of Agricultural Engineers, Hotel Roanoke, Roanoke, Va.

June 18-July 6—Western Regional Extension Summer School, Colorado A & M College, Fort Collins, Colo.

June 25-28—Agricultural Institute of Canada Annual Meeting, Toronto, Ont.

June 25-July 13—Southern Regional Extension Summer School, University of Arkansas, Fayetteville, Ark.

June 28-30—7th Annual Fertilizer Conference, Pacific Northwest, Yakima, Wash.

July 2-20—Northeast Regional Extension Summer School, Cornell University, Ithaca, N. Y.

July 9-12—Florida State Vo-Ag Teachers' Conference, Princess Issena Hotel, Daytona Beach, Fla.

July 15-18—Annual Meeting, Association of the American Agricultural College Editors, Pennsylvania State University, State College, Pa.

July 20-23—State FFA Convention, Jackson's Mill, W. Va.

Better Farming Methods

Trade Mark 622,316 Reg. U. S. Pat. Off.

Featuring Salary Summary

Professional Magazine for Leaders Who TRAIN and ADVISE Farmers. Written for Vo-Ag Teachers, County Agents, Extension Specialists, Soil Conservationists, Farmers Home Administrators, Experiment Station Workers, Farm Managers, and Bank Farm Service Agents.

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Herbert L. Schaller, Editor

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HENRY NATIONAL AUDIO-VISUAL ASSOCIATION NAVA

PUBLISHED MONTHLY ON THE 1st OF THE MONTH BY WATT PUBLISHING COMPANY, MOUNT MORRIS, ILLINOIS

NBP EPA

Allin Paul, left, stopped in to talk with Otto Hauf, a farm and civic leader in Max, N. D., about rural developments.

In five minutes, they'll be talking about rural telephones

That's Allin Paul of Northwestern Bell Telephone Co. on the left. And in northwestern North Dakota, they know when Allin stops to chat the topic is sure to be rural telephone service. That's part of his job.

He's responsible for providing rural folks with telephone service. To do it, he's continually on the move—many thousands of miles a year. He spends a great deal of time talking with North Dakotans about their needs and new rural telephone developments. As a result, in a town like Rugby, N. D., the number of farm telephones has increased from 138 to 500 since 1940.

Allin, who has been on the job more than 30 years, gets a lot of satisfaction from his work.

"Recently," he explained, "a telephone call brought a doctor in a skiplane to a snowbound farm to save a child who had drunk kerosene. People here *must* have good telephone service. A neighbor out here can be a good many miles away."

Allin and thousands of other telephone men and women in Bell System rural areas work continually to bring folks within easy talking distance of their neighbors—across the road and across the nation.

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ROT-PROOF
and needs no paint...

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Stonewall
BOARD

Made of fireproof asbestos-cement, Stonewall Board is the ideal farm building material. It is strong, light in weight and maintenance-free.

It defies fire. It's weather-proof—won't separate, won't rot indoors or out. It never needs painting. And rats and mice won't touch it.

Stonewall panels (standard 8' x 4') may be sawed, drilled, nailed—may be snapped to size simply by scoring. Actually, you can re-side any farm building in the time it once took to paint it. Partitions, old or new, are also easily covered or erected. And like every Ruberoid building material, Stonewall gives you more years for your dollar.

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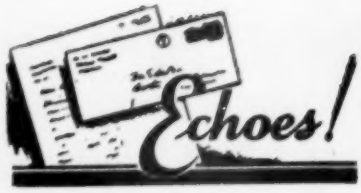


April Editorial Comments . . .

Dear Herb:

I just finished reading your "For What It's Worth" and I think it is worth a great deal. Your analysis fascinated me—first because it related my own thinking almost as if I had written it myself; second, because I have often wondered why more leaders in the field have not voiced such comments, and third, because you have boiled it down to a few simple (what I would call) facts. Congratulations.—*Mel Hollinger, Blaine, Wash.*

Dear Herb:

It is unusual for me to write a "letter to the editor," but I want to comment on your item in "For What It's Worth," April issue, page 86.

You are not likely to win many friends in this manner but the truth often hurts. There is a lot of sense in what you have expressed in the item.—*W. A. Smith, Rural Education Department, Cornell University.*

Dear Mr. Schaller:

Your editorial in the April issue of Better Farming Methods is very good. It is an excellent presentation of a number of factors which are commonly overlooked. I read all of your editorials with interest. This one was especially good.—*Wesley P. Judkins, Department of Horticulture, Virginia Polytechnic Institute*

Dear Herb:

Your editorial, "How Poor the Farmer?", hits the nail on the head. Keep up the good work.—*W. L. Griffeth, extension agronomist, Cornell University, Ithaca, N.Y.*

March, A Honey! . . .

Dear Mr. Schaller:

The March issue of Better Farming Methods is undoubtedly the best issue of your publication I have seen and I have been reading it for some time.

The feature stories on agricultural husbandry were all most informative. Aside from being full of important information they are well written so that the reader, such as I who have a lot of reading to do, can learn a lot without digging through a lot of technical language interspersed with a lot of weasel words.—*Foy Helms, agricultural economist, Alabama Polytechnic Institute.*

Yes, We Can Use It . . .

Dear Sir:

I feel that you have a very interesting and informative magazine. Your method of listing and handling new booklets which are available on agricultural subjects is truly a service to agricultural leaders.

Your short articles "Ideas that Work" are also valuable. I feel that it is important to spread these teaching ideas around so that we all may do a better job of teaching.

Enclosed find one picture and a short article "Roulette Wheel as a Teaching Device." Can you use this article in "Ideas that Work"?—*Edward C. Frederick, University of Minnesota*

Yes, we can use your "Idea that Works." It will appear in a future issue of Better Farming Methods. Thanks for remembering us.—Editor

Solicits More Comment . . .

Dear Mr. Schaller:

If space permits in your column entitled "Coming Events," include May 7-9 as the dates of the Minnesota FFA Convention to be held at the University Farm, St. Paul. I have not had an occasion to compliment you on your editorial "What Makes a Good Convention Program?". Your observations made could include the number of state FFA Conventions. I hope some day you will have a chance to give an editorial treatment on the National FFA Convention as well as the State FFA Conventions.—*W. J. Kortes[illegible] State FFA Executive Secretary, [illegible] Minn.*

An Outstanding Record . . .

Dear Herb:

Inclosed is a picture of 10 boys from our chapter who all received the State Farmer Degree in 1955. I don't know how this stands nationally, but it is a record in the state of Washington for one year.

We have about an average of 110 boys in the chapter, with myself and Harold

Doornink as instructors.

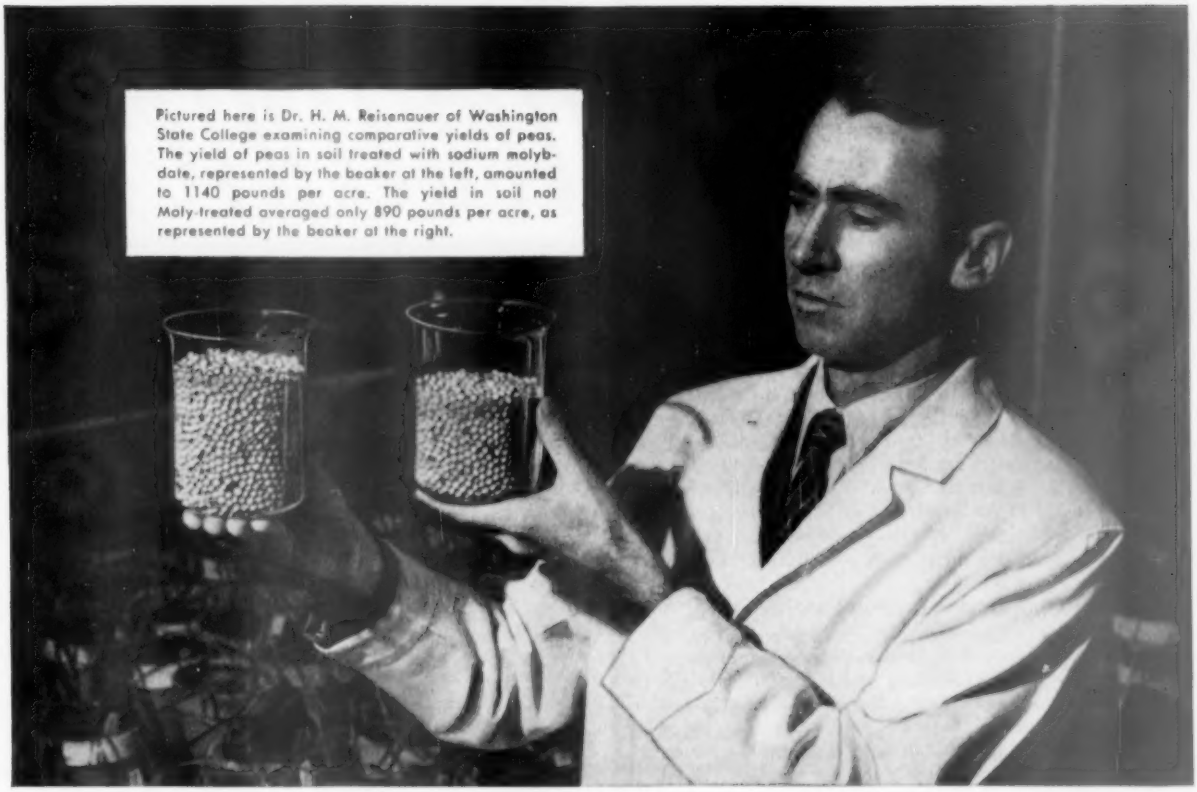
Each state is allowed two percent of their active membership to receive the degree each year. Washington has about 6,000 active members making 120 boys eligible for the degree.—*Blaine C. Hardy, vo-ag instructor, Wapato, Wash.*

Congratulations to Hardy and Doornink. Can anyone top this record?—Editor

★

Watch Mineral Levels

Tests at the University of Missouri seem to bear out the belief that feeding calcium and phosphorus at high levels in a swine ration seems to be the cause of parakeratosis.



Pictured here is Dr. H. M. Reisenauer of Washington State College examining comparative yields of peas. The yield of peas in soil treated with sodium molybdate, represented by the beaker at the left, amounted to 1140 pounds per acre. The yield in soil not Moly-treated averaged only 890 pounds per acre, as represented by the beaker at the right.

Pea yield increased 28% by use of Moly fertilizer

As a part of molybdenum deficiency tests which have been carried on since 1952, Dr. H. M. Reisenauer is demonstrating the value of Moly in stepping up the size, vigor and yield of peas.

Vigorous plant growth and greatly improved yield in peas have been obtained at the Washington State Experiment station through the addition of trace quantities of Moly. Dr. Reisenauer's experiments have shown that when peas are moly-starved the nitrogen fixation is almost negligible, and the plants are small and poorly developed. Moly deficiency results in fewer pods—lower yield.

By adding sodium molybdate to the soil, Dr. Reisenauer obtained vigorous plant growth and greatly improved yield. The pictures reproduced above tell the story.

Moly deficiency has been definitely proved in many areas in the United States

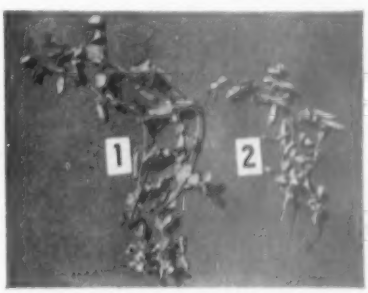
Field observations and tests show that a deficiency of available Moly exists in American soils in many locations. The study of whiptail in cauliflower, for example, has led to the discovery of Moly deficiency in New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia and Ohio. Intensive work on yellow spot brought to light a Moly deficiency in the citrus area of Florida. And the incidence of yellow foliage and low protein content of alfalfa has been successfully corrected by the use of Moly on molybdenum deficient soils in South Carolina, Idaho, Washington, and New Jersey.

All crops need Moly

Many other scientific tests, conducted in the United States and abroad, show conclusively that Moly in available trace quantities is needed by all crops. These findings apply to such widely varying crops as tobacco, tomatoes, celery, broccoli, sweet potatoes, sugar beets and clover.

Practical help is now available to county agents for the conduct of Moly tests

In many parts of this country, not previously reported upon, county agents are finding indications of Moly deficiency in soils. We will be glad to supply test samples of sodium molybdate to county agents for test purposes. Write to Climax Molybdenum Company, Dept. 42, 500 Fifth Avenue, New York 36, N. Y., for our new folder: "Testing for Molybdenum Deficiency."



Shown here are pea plants grown in Moly-treated soil (Plant No. 1) and plants from untreated soil.

MOLY CAN BE ADDED TO ANY FERTILIZER BLEND

In recommending fertilizer blends you can always specify that certain quantities of sodium molybdate be included as an additive.

CLIMAX MOLYBDENUM

Poult Hatches From Unfertilized Egg

A turkey poult hatched from an unfertilized egg at USDA's Agricultural Research Center is the first of known parthenogenetic origin to hatch and live for more than a few hours. Parthenogenesis in turkey eggs was discovered four years ago. In continuing investigations of the phenomenon, more than 13,000 infertile eggs have been placed under incubation. The scientists hope to grow the poult to maturity so that it can be used as a breeder to test, against normal breeders, the incidence of the phenomenon and whether it is hereditary.

Aureomycin in Hog Feeding

Work at the University of Wisconsin in feeding trials on hogs show that aureomycin supplement "firms" the back fat slightly and boosts the protein content of the hog carcass a little. However, it has little effect on the dressing percentage, length of carcass, percentage of lean cuts, back fat thickness, or amount of fat around internal organs. They concluded that antibiotic supplement doesn't affect pork quality much one way or the other.

Electron Beam for Insect Control

Workers at Michigan State University have reported two concrete results from tests with the million-volt electron beam generator installed on the campus a year ago. It will control most of the common insects which infest grain and grain products. A low dose of electrons will kill eggs and insect larvae and will prevent insects from reproducing. Since the cost per bushel for treatment would be very low, such a machine may be practical for elevators.

Orchardgrass Helps Control Bloat

According to a report from the University of Minnesota, orchardgrass is one way to help prevent field bloat. A half legume and half grass pasture mixture gives the best yield, quality, and assurance against bloat, but is hard to achieve because grasses develop slowly. Orchardgrass, however, develops rapidly and gives legumes some stiff competition.

A New Milk-Fruit Beverage

During Cornell University's Farm and Home Week, a new kind of milk-fruit beverage was provided for campus visitors. This new milk beverage came in pineapple, cherry, and strawberry. Cornell researchers are testing the beverage which originated in the Netherlands. Dutch scientists have developed a process by which high grade pectin is mixed with milk and sugar. Then fruit juice is added.

Gypsum as Legume Builder

Results in Minnesota indicate that Gypsum has a value as a legume booster. It is no substitute for other nutrients that the soils need to efficiently grow crops. But, it was easy to tell by better growth and green color exactly where gypsum had been applied.

Develop Resistant Rust Varieties

This spring large acreages in the durum-producing area of North Dakota will be planted to four new resistant varieties of durum wheat. These show resistance to the ravaging stem rust disease called "Race 15B". They were developed in less than six years, about half the time normally required for the development of a new wheat variety. The new varieties are called Langdon, Towner, Ramsey, and Yuma. Watch for continued reports on the success of these resistant varieties.

Use Antibiotics in Bee Diseases

Workers at the Pennsylvania Agricultural Experiment Station report good results in using terramycin for control of Foulbrood, a most serious disease of bees. The terramycin was mixed with powdered sugar in several proportions and dusted between the supers of the hives. In comparison to sulfathiazole, previously used, terramycin is more easily applied, less honey must be removed from the hive, and bees have not shown resistance to the antibiotic.

Spider Mites Inherit Miticide Resistance

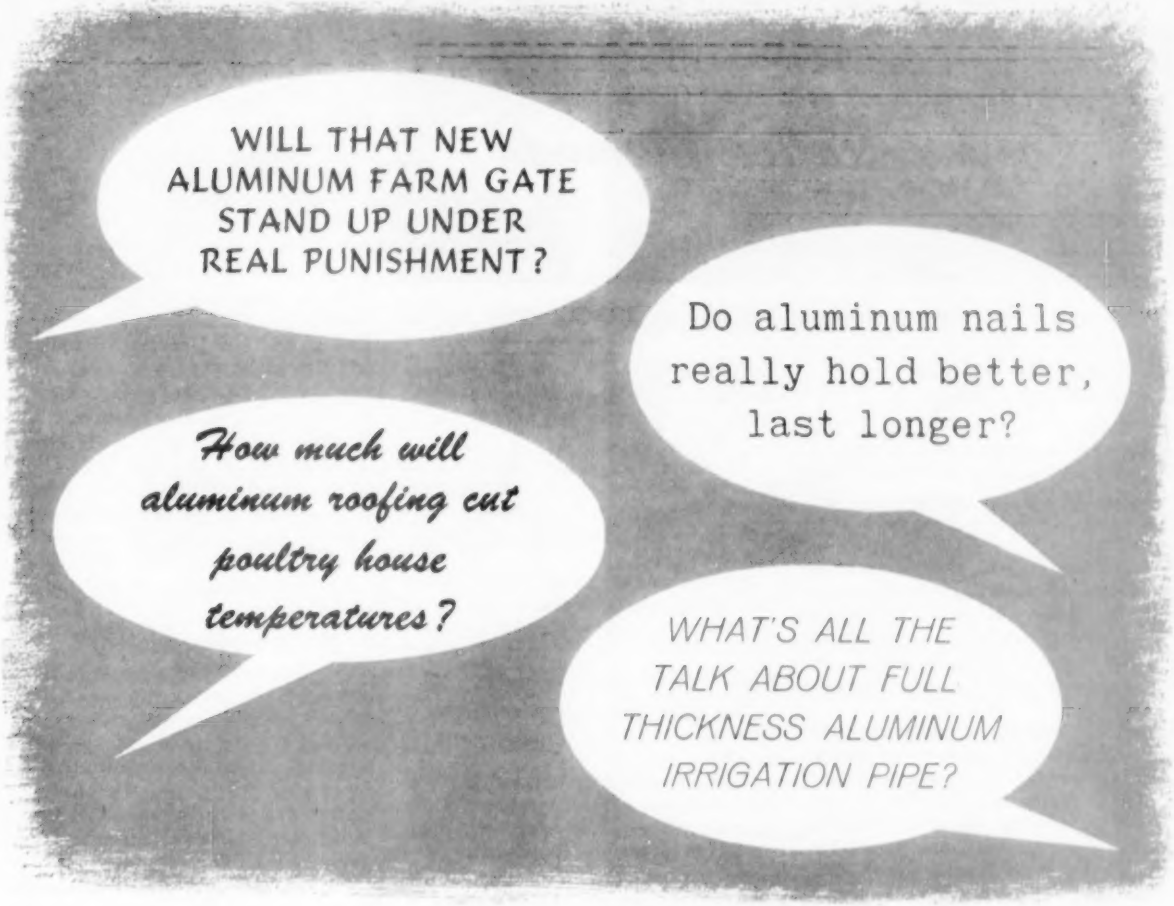
The ability of mites to resist toxic effects of all present-day miticides is an inherited trait, according to entomologists of the U. S. Department of Agriculture. This trait is unlikely to be lost or bred out of mites that have developed it. Research workers are working hard to develop a superior miticide, but until one is found, this pest will continue to cause great losses to growers.

New Fence-Post Treatment

Standing green posts first in a water solution of copper sulfate and then in a water solution of sodium chromate is a simple chemical treatment that was developed by the Forest Service to extend the life of soft and hardwood fence-posts. By so treating, the two chemicals diffuse into the post and combine to form copper chromate. The results are toxic to fungi and insects, practically insoluble in water, and will not leach from wood placed in damp soil.

Treat Cottonseed With Hot Water

Workers of the USDA may have found a way to increase the germination of Pima S-1 cottonseed. It has a tendency to be very hard-seeded. Cooperative studies by the department and California Agricultural Experiment Station show that hot water treatment can largely eliminate this hard-seed problem. A one-minute immersion of seeds in water at 185 degrees F. causes most of the hard seeds of this extra-long-staple cotton to germinate within two or three days.


WILL THAT NEW ALUMINUM FARM GATE STAND UP UNDER REAL PUNISHMENT?
Do aluminum nails really hold better, last longer?
How much will aluminum roofing cut poultry house temperatures?
WHAT'S ALL THE TALK ABOUT FULL THICKNESS ALUMINUM IRRIGATION PIPE?

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You can be "Mr. Answer-Man"

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Available to you without charge are ALCOA booklets, catalogs on building plans, instruction sheets and motion pictures. Subjects covered include pole-barn construction, use of aluminum roofing and siding, the new aluminum farm gates and portable aluminum irrigation pipe.

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ALTERNATE SUNDAY EVENINGS

CHECK ITEMS WANTED AND MAIL COUPON TO . . .

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2072-E Alcoa Building, Pittsburgh 19, Pa.

(Allow plenty of time when ordering motion picture films)

☐ MOTION PICTURE—"Right As Rain" 28-minute color-sound movie on portable sprinkler irrigation. Would like to have this film
from _____ (Dates) to _____

☐ MOTION PICTURE—"Barn Raising, U. S. A." 18-minute color-sound movie showing pole-barn erection. Would like to have this film
from _____ (Dates) to _____

☐ *Pipelines to Profit*—booklet giving information on portable sprinkler irrigation.

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☐ *ALCOA Information Aids*—handy, free catalog listing the cream of ALCOA's library of educational material on aluminum.

Name _____
Title _____
Address _____
Post office and state _____

S P O T L I G H T I N G

Communication Methods

to help ag leaders get farm people to accept new ideas

By Gerald McKay
Audio-Visual Specialist
University of Minnesota

More Magnetic Striped Motion Picture Film

Straws in the wind indicate that there will soon be a strong upsurge in popularity of magnetic striped film. It has been on the market over five years but generally has been used very little.

Television stations now seem to be interested in putting magnetic sound pick-up heads on their projectors. This opens up vast new possibilities in producing material on film which may be used in reaching people via television.

Cost of magnetic striping has been reduced and it can be done before the film is exposed. Processing will not affect it. Narration may be post recorded or done as pictures are being taken. Sixteen mm. cameras are being developed to record sound simultaneously on the magnetic stripe. This should be especially valuable for news or demonstration type films. For example, a 10 minute 4-H or FFA demonstration can be done on film and then shown on a number of TV stations. The film will still be effective at group meetings and for classroom use.

The impetus of television's use of magnetic striped film will encourage more use for other purposes.

Anyone planning to purchase a 16mm projector in the near future might do well to consider one with a magnetic recording head.

Write a News Story

Your local newspaper is almost always interested in a news story of your 4-H or FFA meeting. But the editor doesn't want the secretary's minutes.

A bulletin from Colorado A & M College says that in some organizations, there is a tendency to consider the secretary as the news reporter. This may be responsible for the confusion that too frequently exists between minutes of the meeting and the story of what happened.

Interesting events and important decisions should be featured in the news story. The public doesn't care who made the motion nor if a delicious lunch was served. And readers aren't concerned whether the minutes were approved or not.

Eliminate all details which are of interest *only* to your club. Report just the significant happenings—they will fill all the space you can ask the editor to give.

Remember that every inch of space in a newspaper is income to the owner of that paper. Keep the stories short.

Each Sense Plays a Part

The most effective communicators take advantage of as many senses as possible.

"We all have five senses. We feel the wind and rain of winter and the warmth of the summer sun. We smell the smoke of autumn bonfires and the sweetness of new-mown hay. Even in darkness, we see the silhouette of animals, houses, and trees. In daytime we see things straight in front, but are aware of other things all around.

"When we are listening to someone speaking, we may hear the click of a typewriter in another room, the noises of car engines in the distance. All these sensory impressions surround us every moment.

"It is surely not quite logical to try to gain the full and undivided attention of the mind through one sense only—hearing. We should, as far as possible, communicate ideas to the whole man, to all his senses.

"Let him hear noise, words or natural sounds, let him see things, pictures, actual objects, symbols, moving models, films or the written word. If possible, let him touch things, let him smell or taste them."

—Adapted from the "Fatis Review"

Mrs. Jo Nelson, assistant extension editor, University of Minnesota, points out the importance of the lead paragraph. Readers like news with the most interesting and most important fact first. Less important facts follow in order. This is called the "inverted pyramid style."

A Multipurpose Projector

The overhead projector, sold under several trade names, is potentially a very effective aid. Because it is not as portable as some, the overhead projector probably hasn't enjoyed the popularity it deserves. Certainly for classroom use where portability isn't a factor, it could be used more extensively.

This projector can be operated at the front of the room by the teacher. It does not require as complete darkening of the room as some other projectors do.

It will accommodate large size transparencies (up to 10 inches square). These can be on cellophane drawn by hand or can be taken from color illustrations in magazines.

And perhaps most important, it can

YIELD— BOOSTERS

...all these CYANAMID products help boost yields and profits!

FOR INSECT CONTROL

MALATHION Insecticides . . . combine low animal toxicity with high insect toxicity. Control mites, aphids and many other insects on fruit, vegetable and field crops, ornamentals. Malathion is the preferred insecticide for control of flies—even those resistant to DDT. Malathion controls poultry mites, too.

THIOPHOS® Parathion Insecticides . . . for broad, low-cost protection against more than 100 different insects, on more than 50 different crops.

CYANOGAS® G-Fumigant for farm-stored grain . . . most effective, most economical, easiest way to safeguard farm-stored grain against insect damage, grade loss. A *dry* fumigant applied automatically as grain is being stored by auger or loader.

FOR WEED CONTROL

AMINO TRIAZOLE . . . for control of such troublesome weeds as Canada thistle, sow thistle, poison ivy, poison oak, quack grass, nut grass, equisetum, phragmites, certain woody species.

AERO® Cyanate, Weedkiller . . . selective, contact herbicide for killing weeds in onions and other crops.

RODENT CONTROL

CYANOGAS® A-Dust . . . all-around pest killer for farm and garden. Kills ants, rats and other pests right in their nests or burrows.

DEFOLIATION

AERO® Cyanamid, Special Grade . . . for defoliation of cotton, soybeans, tomatoes and other crops, as well as killing potato tops to permit earlier, better harvests. Also used as a selective weedkiller in small grains, peas and other crops.

AMINO TRIAZOLE . . . for defoliation and regrowth control of cotton.

FERTILIZATION

AEROPRILLS® Fertilizer Grade Ammonium Nitrate . . . contains 33.5% nitrogen, half in quickly available nitrate form and half in more slowly available ammonia form.

AERO® Ammonium Sulphate . . . a 21% nitrogen, free-flowing material, for manufacturing mixed fertilizers and for direct application.

AMANOL® Nitrogen Solutions . . . low-cost source of nitrogen for direct application to the soil. Available in varying proportions of anhydrous ammonia and ammonium nitrate to fit specific requirements.

FERTILIZATION, WEED CONTROL, DISEASE CONTROL

AERO® Cyanamid, Granular . . . for weed control in tobacco plant beds; for disease (sclerotiniose) control in certain vegetable crops. Ideal for direct application, and to plow down with cover crops and stubble to make humus. 21% nitrogen.

WRITE FOR DESCRIPTIVE LITERATURE

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AGRICULTURAL CHEMICALS DIVISION

30 Rockefeller Plaza, New York 20, N.Y.

FREE MOVIE!
FREE BOOKLET!
BOTH TELL HOW TO WIN
GRAIN SANITATION BATTLE WITH INSECTS
Booklet is called, "Meeting the Challenge." The 16mm color movie is entitled, "The Hungry Horde" and is 18 minutes long. Both tell the fascinating and educational story of how to conquer the problem of insect infestation in stored grain and meet the challenge of the new grain sanitation standards, with a new liquid grain protectant called TETRAKOTE. Both are available to you for use as you see fit.
Douglas
CHEMICAL COMPANY

NO COST • NO OBLIGATION • MAIL COUPON TODAY

DOUGLAS CHEMICAL CO.
620 East 18th Ave., North Kansas City, Mo.

☐ Send me _____ copies of free booklet.

☐ Yes, I would like to see the movie, "The Hungry Horde." Send reservation information.

Name _____

Address _____

City _____ State _____

. . . tips on making good window displays.

be used for the same purpose as a blackboard but with the teacher facing his class.

If white flannel is used for a screen, the overhead can project the background for a flannelgraph. Flannel pieces can be placed on the "flannel-screen" to tell the desired story, and the background itself changed quickly by putting on another transparency.

A good overhead projector can be bought for $175 to $225.

New Books on Audio-Visuals

"Community Film Use" and "A B C's of Visual Aids & Projectionist's Handbook" would be valuable additions to any county agent or agriculture teacher's library. They tell the why, when and how of using films.

Educational Film Library Association, 345 East 46th St., New York 17, is the publisher. Prices are nominal.

Long Playing Magnetic Tape

New thin magnetic plastic tape has recently been put on the market. A standard seven inch spool will hold 1800 feet instead of the usual 1200. This means 50 percent more recording on each spool. At three and three-fourths inches per second, with a twin track recorder, you can get three full hours of material on one spool.

The tape is sold by Minnesota Mining and Manufacturing Co., St. Paul, under the name of "Extra Play" recording tape 190A.

Help with Window Displays

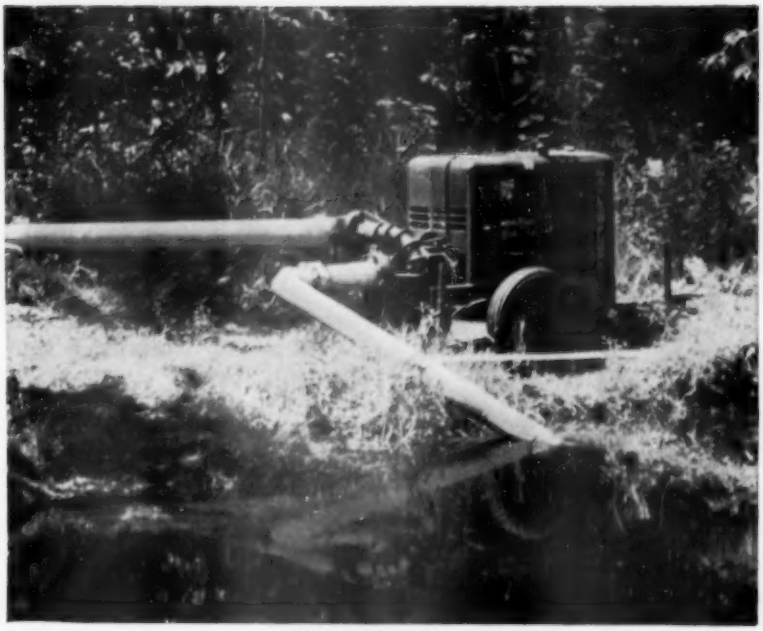
After your committee is appointed, the first problem is usually to plan an effective display for a certain down town window. The most obvious sources of this help is often overlooked. The person in the store who is responsible for keeping the windows trimmed usually will have a wealth of ideas. He may be a professional display builder, an artist, or just a store employee assigned to that job.

There are three things your committee can do to develop and maintain good relationships with the store owner who provides your window space:

1. Be sure to build the display at the time agreed.

2. Keep it in good shape during the time it is up.

3. Take it down immediately on the date agreed and thank the store owner and the person who helped plan it.—*End*



This 6-inch Marlow pump delivers water to a potato field almost one mile away from the farm pond.

600 Bushels of Potatoes Per Acre...With Irrigation

IRRIGATION MAKES POSSIBLE HIGH QUALITY YIELDS FOR POTATO CHIPS.

E. G. Snyder of Preston, Ontario, operates a 300 acre farm to produce about 17,000 pounds of potato chips daily. He grows Cobblers, Sebagos, and Russetts and thinks that irrigation is indispensable. With his irrigation, his first crop of Cobblers ran about 250 bushels per acre, but later crops have produced as much as 600 bushels per acre.

An old hand at irrigation, Mr. Snyder has been using overhead sprinklers for the past 10 years. In 1952, he selected two Marlow pumps to modernize his system. Because of their excellent performance, when Mr. Snyder installed a third pump in 1955, he made it a Marlow.

The latest system is typical of the other two now in operation. A Marlow Model 6E6S pump moves water from the farm pond to the field through 1,000 feet of 6-inch main and 3,500 feet of 5-inch main. At that point the water passes through the 3-inch and 4-inch laterals and is distributed by 30 sprinkler heads. This system is used to irrigate two different fields. Water for three more fields is supplied by the other two dependable Marlow Sprinkler-irrigation pumps.

Like many farmers, Mr. Snyder would not be without irrigation. In fact, he says that sprinkler irrigation is absolutely necessary to operate profitably year after year. Your Marlow dealer is an irrigation expert and can supply additional information. He will be glad to plan a system for your consideration. Write for complete information about Marlow Sprinkler-irrigation pumps . . . there is no charge and no obligation.

Prime quality potatoes are produced every year with the "controlled" rain delivered by this system.

Marlow PUMPS

5-257

MARLOW PUMPS

Division of Bell & Gossett Company

RIDGEWOOD, NEW JERSEY

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In Canada: SPRAYMOTOR SALES AND EQUIPMENT, Ltd., London, Ontario

WASHINGTON NEWS

By Fred Bailey and Jay Richter
(Exclusive to Better Farming Methods)

Helps for Poor Farmers

It looks like an expanded program for aid to low-income farm families may again bog down in a mire of political hot-talk.

Last fall a special subcommittee of the House Ag committee toured 3,000 miles up, down, and across the land to "study" the plight of the "small" farmer.

Jay Richter

The subcommittee just the other day came up with some findings. All hands agree there is much that ought to be done for low-income farm families. Between 1950 and 1954 about 600,000 family farms disappeared, the group pointed out, or about twice the number that had vanished during the preceding 20 years.

The situation is intolerable, the subcommittee said, because the family farm is the "backbone" of agriculture and free enterprise.

On this much there is little dispute. It is on the old issue of price-support levels that lawmakers on the subcommittee are split. A majority Democratic report contends that the government should guarantee 90 per cent of parity to low-income farmers now, and 100 per cent later. Full parity in the future would be applied not only to "basics," but to all crops grown by the low-income farmer.

A GOP minority on the subcommittee disagrees, and issued a report to that effect.

Result could be further inaction on measures that will give low-income farm families the assistance needed. Last year Congress turned down a USDA request for additional extension funds to get going on pilot programs in areas of rural distress. The department also requested additional FHA loan money for low-income farmers . . . got about half of what it asked.

Since then USDA and individual states have started a "Rural Development Program" to see what can be done with funds at hand. The department reports some progress. Development committees have been set up in 13 states, it is reported, and there are now 37 pilot counties and trade areas where work is being done or planned.

Raise Leader Funds

Budgets for both vo-ag and extension are ship-shape, although neither is final.

Funds for both are probably due to be raised in the new fiscal year, starting July 1, barring unforeseen accidents on Capitol Hill.

There has been little controversy to date over either fund. For extension payments to states, USDA is asking about 10 per cent more than last year, or a total of over $50 million. Approximately half of the increase probably would be used to hike the pay of county agents and other extension workers.

For vo-ed work the Congress is expected to vote the legal maximum allowed under present law, or more than $29 million. Of that amount, $10,241,610 would be for vocational agriculture training.

Final action on funds for vocational training and extension is expected earlier than usual in this election year. Most lawmakers are not only feeling in a generous mood, but are also impatient to get out of Washington and devote full time to the problem of getting back here next year.

Money for Colleges

Should the federal government appropriate money for buildings and facilities at State Experiment Stations?

College researchers, paid in part or whole out of federal funds, are now housed and equipped almost entirely by state money.

There is a growing feeling in some quarters that the federal government should ante up some funds for facilities. Land-grant college leaders, for instance, are beginning to explore the idea. Recommendations for such funds are not likely to be made to Congress this year, but ground is being laid for action later.

One reason for concern of college officials is present crowded conditions on campuses across the country. There is a great hue and cry across the land that the country is suffering from a shortage of young people qualified for technical training. In some states, however, applicants are being turned away from our colleges—not because they are unqualified, but because facilities are lacking to take them in.

This is especially true in engi-

Here's the quickest, easiest way known to

kill flies

JUST SCATTER IT LIGHTLY AS YOU WALK

ORTHO Fly Killer Dry Bait

Protects your whole barn in a matter of minutes

EASY TO USE . . No mixing. No measuring. No equipment. Treats average-size barn in 5 minutes.

USEFUL . . . . . Controls DDT resistant and non-resistant houseflies around sheds, barns, stables, pens, coops.

EFFECTIVE . . . . Flies can't devour 1/16" granules, but feed and die. Leave granules to bait other flies.

FLIES LOVE IT . . This dry granular bait contains special attractives that lure houseflies.

FREE RUNNING . Non-caking. Always loose, ready to scatter.

ECONOMICAL . . One pound covers 2,000 sq. ft. of fly feeding areas.

ECONOMY sizes available —ORTHO Fly Killer Dry Bait is packed in 5-lb. bags and 25-lb. fibre drums.

1-lb. handy size shaker can.

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SCIENTIFIC PEST CONTROL

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ON ALL CHEMICALS, READ DIRECTIONS AND CAUTIONS BEFORE USE

California Spray-Chemical Corp. • Executive Offices: Richmond, Calif.; Washington, D. C. • District Offices: Portland, Ore.; Whittier, Calif.; San Jose, Calif.; Fresno, Calif.; Sacramento, Calif.; Caldwell, Ida.; Maryland Heights, Mo.; Memphis, Tenn.; Orlando, Fla.; Phoenix, Ariz.; Maumee, Ohio; Haddonfield, N. J.; Medina, N. Y.; Columbia, S. C.; Shreveport, La.

Working with farm youth is high on the list of activities of the Spencer Agronomy Team. Here Chief Agronomist Proctor Gull explains the Spencer "Efficient Corn Growing Program."

Spencer Agronomists Are There!

To help you promote better agriculture is the aim of members of the Agronomy Section of Spencer Chemical Company. These experienced agronomists are at your service to help you in your work with vo-ag students.

You can take advantage of this service by writing for the teaching aids described below. For these aids, or for further information about the Spencer Agronomy Program, send coupon or write: Spencer Chemical Company, Dwight Building, Kansas City 5, Mo.

This new booklet has been prepared by Spencer Agronomists as a teaching aid. It is available in quantity (without charge) to Vo-Ag teachers to assist in their work. Just mail coupon below.

Four new 35 mm. slide sets also are available. Each set contains 50 color slides and an accompanying script. Available for corn, cotton, Southeast pastures, Midwest pastures. Specify date.

☐ _____Copies of booklet Slide Set ☐ Showing date: _____

Alternate date: _____

Corn _____ M.W. Pastures _____

Cotton _____ S.E. Pastures _____

NAME _____

ORGANIZATION _____

ADDRESS _____

TOWN _____ STATE _____

SPENCER CHEMICAL COMPANY
606A Dwight Building
Kansas City 5, Missouri

. . . gas refund will help farmers.

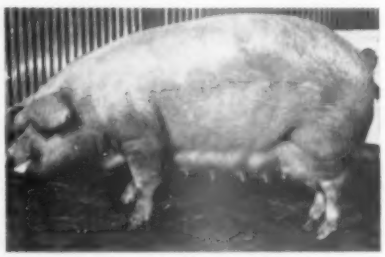
neering courses, but also to some extent in agriculture, according to land-grant college leaders.

Help on Gas Refund

County agents and others may be getting requests from farmers to help out with applications for refunds on federal taxes paid on gasoline.

Legislation has been passed, and signed into law by the President, ending the 2c-per-gallon tax on gas used on the farm. To realize the saving, however, farmers are required to apply for it to the Internal Revenue Service. The law is retroactive, allowing refunds since last January 1, as well as on gas purchased in the future. Annual saving to farmers could be about $60 million . . . about $90 million, if and when the gas tax is raised to 3c.—*End*

★



Pictured above is the "Palouse," a new breed hog developed by Washington State College. It is noted for its high proportion of lean meat, and is a result of inbred crosses between the Danish Landrace and Chester White breeds. First crosses were made in 1945, and the purpose of the new breed is to provide an acceptable breed of meat-type hogs for the Pacific Northwest.

★

Announce Cotton Defoliant

The Chipman Chemical Company, Inc., Bound Brook, N.J., announces a new cotton defoliant for dust application—Shed-A-Leaf "D." The product will be available in the cotton states east of and including Texas.

This defoliant is a white dust and is applied by either airplane or ground dusters. It is non-irritating to people handling and using it, non-poisonous, and does not corrode equipment.

The above laborsaving arrangement of steel buildings illustrates the bedded loafing area on the left. The building on the right houses a hay and straw storage area with a self-feeding manger.

Modernization with Factory Built Steel Buildings

pays off handsomely for dairy farmer Ross Griffith of Galesburg, Ill.

Combination Milking Parlor—Milk House Building: contains a three-stall "U"-type milking parlor and a roomy, well-ventilated milk room. In addition to the above three buildings, the Griffith farm has a Factory-Built machinery storage building.

By installing Factory-Built Steel buildings for a loose housing system, Mr. Griffith has changed from a Grade C to a Grade A dairy operation—and now in less chore time than he formerly spent, he can handle twice as many of his registered Jerseys.

The use of versatile steel buildings, fabricated from USS Galvanized Steel Sheets with USS Structural Steel framework, makes this economic, time-saving operation possible. The clear span construction permits the use of mechanical equipment for manure and hay handling. Hay and silage are self-fed and concentrates are fed from hoppers in the insulated steel milking parlor.

WHEN YOU WISH TO MODERNIZE AND ACHIEVE THE SAME PAYOFF, THEN

SEND THIS COUPON FOR FURTHER INFORMATION

Agricultural Extension
United States Steel Corporation
Room 5304, 525 William Penn Place
Pittsburgh 30, Pa.

I am interested in steel buildings for the following:

☐ *dairy barns* ☐ *hay storage* ☐ *machinery storage*
☐ *cattle shelters* ☐ *grain storage* ☐ *poultry houses*

☐ *other* .....

Approximate size or capacity .....

Send information to:

Name .....

Address ..... **Town** .....

County ..... **State** .....

United States Steel Corporation produces high-quality USS Galvanized Steel Sheets and Structural Steel which our customers manufacture into durable farm buildings. Your request for information will be forwarded to the manufacturers of these buildings, and you will hear directly from them.

See The United States Steel Hour. It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.

USS

UNITED STATES STEEL

Here is a proven program to . . .

Teach Farmers Weed Control

through use of chemical sprays

IN JANUARY, 1956, the Northeastern Weed Control Conference honored Assistant County Agent Lacy with a framed citation and $100 for his outstanding work in chemical weed control.

His present position in Otsego county, New York, is assistant agent in charge of the county's agronomy program.

By W. Kennard Lacy
Assistant County Agent
Cooperstown, N. Y.

● EACH YEAR thousands of vacationers turn south from Route 20 in central New York to visit historic Cooperstown, scene of Cooper's "Leatherstocking Tales" and home of the National Baseball Hall of Fame.

And if you were making this trip next June, you would probably comment on the peaceful and colorful Otsego county countryside. Unless, that is, you happened to notice that tractor over there spraying corn.

Then you'd know that at least in one field things were anything but peaceful and within three or four days one bright yellow color would be eliminated from the landscape.

Spray Kills Weeds

If you took time to stop and talk with this farmer, he's probably say, "Yes sir, this 2,4-D stuff really cleans the mustard and pigweed out of my corn, particularly in the rows where you can't get at 'em with the cultivator.

You should have seen my corn last year. I was new at this spraying business and skipped a couple of rows right down the middle of the field. As soon as the other weeds died off, that strip stood out like a sore thumb. I guess you could have seen it a mile away. That sold me on spraying right there."

Compare Strips

This farmer's experience was more than just a mistake. It was and still is a great teaching demonstration. For, when I talk to a farmer about spraying for the first time, I always tell him, "Be sure to miss a strip, then you'll be glad you sprayed." And he will be!

Of all the farmers in Otsego county who have tried chemical weed killers, I know of only one dissatisfied customer. He made the mistake of spraying too late and got severe 2,4-D injury on corn.

Usually though, the response is something like Charlie Burton's. He phoned about a weed problem in a field of barley. I stopped at his farm, looked over the situation, and suggested that he spray it. Last winter at a crop meeting I asked how the chemical had worked on the weeds. "Great!" he answered, "Killed 'em deader than a doornail!"

COLORED SLIDES . . .
They helped sell the program.

Spray in Right Amounts

But as Stan Fertig (Cornell agronomy dept.) says, "Once you kill them, they're dead, and you can't kill 'em any deader. So, keep your crop in mind and be careful how much chemical you put on." And so a big part of our weed spray work here has been teaching farmers to calibrate their sprayers.

Of course the first step is to convince them that weed sprays are a good idea at all.

I guess you've used most of the usual extension methods such as meetings, demonstrations, letters, news articles, and radio talks to promote chemical weed control. *But I feel quite sure that my personal farm visits during May and June got results where other media would never have influenced the farmer enough to actually get him started spraying.*

Observe Three Points

From my observations, it seems that there are about three obstacles a farmer has to overcome before he is ready to write out a check for his first weed sprayer.

First he has to sense a need for better weed control on his farm. This usually isn't hard but often there is a tendency to rationalize and say, "well, maybe I'd better wait and see if I have any weeds this year." Then, strangely enough, when the season rolls around, they show up just like every other year.

Second, even those who know they should spray sometimes find themselves afraid to risk using one of those "dangerous" chemicals. More than

"This package of Parvex makes these pigs profitable"

The difference between profit and loss in raising and selling pigs is often the difference between pigs having worms and pigs being free of worms.

The major parasites of swine, like the large roundworms and nodular worms, live at the expense of the pig, robbing it of nutrition, stealing its energy, slowing its growth, making it fair game for disease, reducing its breeding vigor.

But not all wormy hogs show these effects. Pigs with "subclinical" parasite infections may appear to be normal and healthy. However, when these animals are wormed with PARVEX to remove the roundworms and nodular worms there is a quick increase in weight, sometimes as much as 20%—and often on less feed. This means PROFIT.

Number of pigs that may be treated with each package of Parvex

Body Weight of Pigs	77 Gm. Package	385 Gm. Package
20 lb.	15 pigs	75 pigs
30 lb.	10 pigs	50 pigs
40 lb.	7 pigs	37 pigs
50 lb.	6 pigs	30 pigs
75 lb.	4 pigs	20 pigs
100 lb.	3 pigs	15 pigs
150 lb.	2 pigs	10 pigs
300 lb.	1 pig	5 pigs

Advantages of Parvex

1. Palatable and easily administered.
2. May be given in wet or dry feed.
3. No starvation necessary before treatment.
4. Administered for *one feeding only*.
5. Rapid expulsion of worms.
6. Worms are expelled alive—no danger of decomposition in the intestinal tract with resulting toxemia.
7. 95 to 100% effective against mature and immature large roundworms (Ascaris).
8. 85% effective against nodular worms (Oesophagostomum).
9. A nontoxic anthelmintic—pigs quickly return to full feed; may be re-treated as indicated.
10. No evidence of drugs deposited in meat.

Parvex

TRADEMARK

THE NEW, ONE-DOSE, IN-THE-FEED HOG WORMER

QUICK • SURE • GENTLE • ECONOMICAL

Parvex is available in 77 Gm. and 385 Gm. sealed bags from druggists and veterinarians.

Upjohn VETERINARY SALES DEPARTMENT THE UPJOHN COMPANY, KALAMAZOO, MICHIGAN

Continental closed power unit installed in 1947, and never removed from its base, provides power for operation of irrigation pump on farm of K. K. Moore, Wilson, Texas.

Your Irrigation Pump Demands an Irrigation Engine

. . . a CONTINENTAL RED SEAL

Designed and Built for YOUR Job

There's a big difference between rolling an automobile over a smooth highway, with frequent rests and plenty of coasting, and dragging a heavy stream of water up from the depths of the earth, hour after hour, day after day and week after week. That's why it pays, when laying out your irrigation program, to choose power engineered and built for the really tough jobs. Not only do you save in maintenance costs by choosing the right engine in the first place; you also clinch the advantage of having water where and when you need it, all season long . . . and this can make all the difference between black ink and red. Continental Red Seal irrigation power is the product of engine experience dating from 1902. It is available for use on all standard fuels, including Diesel oil and LPG, and it's backed by service and genuine Red Seal parts from coast to coast.

A COMPLETE LINE OF 4-CYCLE AIR-COOLED ENGINES

Continental also builds air-cooled models, from 2 to 3 h.p., for heavy-duty applications in industry and on the farm. They embody the exclusive Contax® external ignition system, greatest air-cooled engine advance in recent years. For information, address Air-Cooled Industrial Engine Division, 12800 Kercheval Ave., Detroit 15.

6 EAST 45TH ST., NEW YORK 17, NEW YORK • 3817 S. SANTA FE AVE., LOS ANGELES 58, CALIF.
6218 CEDAR SPRINGS ROAD, DALLAS 9, TEXAS • 1252 OAKLEIGH DR., EAST POINT (ATLANTA) GA.

CONTINENTAL MOTORS — Powered the Nation — AMERICA'S STANDARD

Continental Motors Corporation
MUSKEGON, MICHIGAN

one man has confessed, "Yeah, I've had a sprayer out in the shed for a couple of years but I never used it. Seemed so complicated I was afraid I'd make a mistake and ruin the crop."

Field Trial Helps

Where I've offered to help calibrate an outfit and be in the field for the first application, fear of the chemical disappears.

The third obstacle is parting with the necessary money for a sprayer. Some fellows get around this by hiring one of our three custom operators who spray nearly 2000 acres a season.

Probably my 35 mm. camera deserves a lot of credit in selling weed control as a wise crop practice. Dozens of local groups from the agricultural teachers to the Lions Club have heard my weed control story via colored slides. Actually seeing a good farmer out there spraying his oat crop or seeing how mustard looks after a dose of 2,4-D stimulates a lot of interest.

Armyworms Did Some Good

And really to be fair, we have to admit that the armyworms, which threatened crops here in 1954, made crop sprayers and chemicals more important than they had ever seemed before. Men who hardly knew what a sprayer looked like before, were rushing to locate one to protect their corn, oats, and hay.

At that time we had 46 low pressure weed sprayers in the county according to our surveys. The 1955 survey reported 70 and we expect to see 100 sprayers on our farms this year.

What else is in the future? Well, I'm convinced that we've just scratched the surface in the discovery and use of chemicals for weed control. This spring we plan to try some dalapon and amino triazole for quack grass control in corn, also dalapon to take bedstraw out of birdsfoot trefoil stands.

And beyond this? Certainly there are great possibilities as chemicals take a front seat in today's agriculture.—*End*

★

New Dried Milk Product

A new type of dried milk product may hold the answer to a number of dairy problems, according to workers at Washington State College.

Partially defatted milk solids have shown considerable potential value. They reconstitute quite readily and have a good keeping quality. In addition, such milk solids have a better flavor and taste more like fresh milk.

SPECIAL MESSAGE FOR COUNTY AGENTS AND VO-AG TEACHERS

Now thanks to new developments in the science of electronics, you can actually hear, on any 78 rpm phonograph, the educational story and sound of a chicken gizzard in action, both with and without hard granite grit.

Hear the difference with granite grit

You'll want to listen to the actual contraction and relaxation of the gizzard muscles in action. Compare for yourself, and at meetings, the grinding cycle of gizzards with and without granite grit. Wonderful for authentic instruction in the function of the gizzard.

Stonemo, the Grit with the Extra Grinding Surfaces

As you will hear on the amazing gizzard recording, granite grit helps increase gizzard efficiency, helps the organ do more effective work in grinding feed. Pictured is Stonemo Granite Grit, highly magnified. Notice the "extra grinding surfaces." Effectiveness in helping birds' gizzards grind out more eggs and meat from feed, has made Stonemo America's most popular poultry grit.

How you can hear this new scientific recording

This recording milestone is offered you through Stonemo Dealers and Distributors by the Stone Mountain Grit Co., with the permission and co-operation of the Granite Grit Institute, which developed the special microphones and equipment required to record this authentic sound.

Borrow one of these scientific recordings from your local Stonemo dealer now. If he cannot supply you, write us direct for your free copy.

Help your chicks build ...muscular gizzards ...healthy digestive systems -feed STONEMO GRANITE GRIT!

Yes, build young gizzards *now* for more eggs and meat *later* —get more efficiency from your feeds.

Stonemo Granite Grit helps your birds build more muscular gizzards for healthy digestive systems now—*systems capable of processing the large amounts of feed needed for efficient production.*

And later you get *more eggs and meat* because Stonemo Granite Grit helps grind out more of the nutrients from your feeds—nutrients that help make eggs and build meat.

How Stonemo Works in the Gizzard

Stonemo's *extra grinding surfaces* grind feed finer—grind open the tough cellulose "capsules" that surround feed nutrients—release many of these nutrients for digestion and assimilation. More feed particles can mix with digestive juices—more feed surfaces are exposed for digestion—more of the feed's nutrient value can be put to use.

Put Stonemo to Work for You Right From the Start

Build young gizzards and digestive systems, and get better performance from your quality feeds. Get more eggs and meat. Get Stonemo, *the grit with the extra grinding surfaces.* (For best results use at least one hopper of Stonemo to every watering station.) Call your feed or poultry supply dealer today for *Stonemo Granite Grit in economy 80-lb. bags.*

STONE MOUNTAIN GRIT COMPANY, INC.
Lithonia, Georgia

STONEMO the Grit with the "EXTRA GRINDING SURFACES"

This farm safety leader asks . . .

Why Not a National Farm Safety Program?

Read how this leader proposes to increase the effectiveness of farm safety programs by coordinating efforts of all states in a unified policy and program.

By F. R. Willsey
Farm Safety Specialist
Purdue University

● IN INDIANA, we wish we could have had in 1955 a few thousand copies of the excellent educational insert "Safety in the Use of Pesticides" that appeared in the January, 1956, issue of Better Farming Methods.

That was one of the subjects Indiana farm organizations featured in 1955. If the article had appeared at that time, we would have called the attention of agricultural leaders to the article and its possibilities.

This year such a letter might be confusing because materials on other safety subjects have been made available. We will still use several copies but not as many and not as effectively as we could have a year ago.

Situations like this are far too common. It's not the fault of the farm magazines or other informational sources. The fault lies with those of us who work as farm safety leaders. *We have neglected to take full advantage of our very limited numbers by co-ordinating our efforts.* Let me explain what I mean by the following illustrations.

Repetition Decreases Interest

A few years ago Indiana FFA Chapters were starting to remark, "We did that last year." It was a just criticism. We were basing most of our FFA safety program on a comprehensive safety check-list that touched on all phases of farm life. The first year's response was pretty good. Next year the same list didn't look so good.

With this in mind, in about 1951 we started picking a few safety topics for emphasis each year. Unfortunately, they were not the same for all rural groups. This made safety teamwork difficult at the state, county, and local levels.

That's why we decided, in 1953, to ask these various groups to co-ordinate their safety programs on a state-wide basis. Here are some of the advantages that seem most apparent. Most of them are available to us nationally if we will use them.

Helps Coordinate Publicity

1. It's easier to publicize.

This may be the biggest reason of all. Farm magazines, TV and radio programs reach across county and even state lines. Just one typical county might have 30 4-H clubs, 25 Home Demonstration Clubs, 12 township Farm Bureau organizations, and corresponding numbers of other rural groups. Imagine the confusion when each of these organizations attempts to get publicity for different safety programs. Then multiply that by all the counties in the state.

2. The scope of a co-ordinated program adds more prestige to our farm safety efforts.

Other movements have taken advantage of this for years. Why not farm safety?

Makes Planning Easier

3. It helps in planning state farm safety programs.

We can more nearly anticipate the requests of county and local groups because we know what safety subjects most of them will be stressing. It will be much easier to provide up-to-date literature and fresh reference lists. We can prepare more specific program aids and get more specific improvements.

4. It helps in planning county safety programs.

At one time, in Indiana, we were depending largely on county programs to get the safety story across. Sometimes it would be March or April before I could get together with the county agent on a date that was satisfactory to both parties. Then the committee tried to decide "What shall we do this year?" Then came the problem of getting literature and distributing it to organizations that might not have any idea of how to use it effectively.

Prepare Specific Material

Now materials are made available to local groups through state and county channels. They are often prepared especially for the organization that will be using them. Each organization's materials cover basically the same subjects although some variation necessarily exists from one organization to another.

Now there is still some safety activity even if the county committee fails to function. If it is active, it's much easier to plan the coming year's safety program. That program will be based upon the subjects each of the local groups will be studying.

Variations can be made to meet special needs but, at least, they have a basic program. In fact, they can start making plans a year or two in advance.

Program Is Flexible

The right of farm people to choose their own programs is considered almost sacred by the Extension Service. I certainly agree with the principle of this philosophy. I can not agree with

PURINA VISITS

Patricia Kuhr

FARMER OF TOMORROW

Meet Miss Patricia Kuhr: One of six national poultry winners in 1955; queen of the district fair in Freemont, Nebraska; Farmer of Tomorrow!

During the last eight years, Pat has held every office in her local club! Living on R. F. D. No. 1, Blair, Nebraska, she has carried out 11 major projects—including her seven-year-old dairy herd, that now numbers 12 Holsteins. And Pat's dairy project has won many awards: two grand championships, first in dairy showmanship, one reserve championship, eight purple ribbons, four blue ribbons, second place in the county judging contest three times, and fourth place in showmanship contest at her district fair.

In addition, Pat has carried on a very successful poultry project for five years. She has raised more than 4000 chicks. Her poultry work has netted her 48 purple, blue, and red ribbons so far.

Pat plans to use the $300 scholarship she won as national poultry winner to enter the University of Nebraska or Iowa State College next fall. So, to Patricia Kuhr—Purina feeder and Farmer of the Future—our congratulations and good wishes!

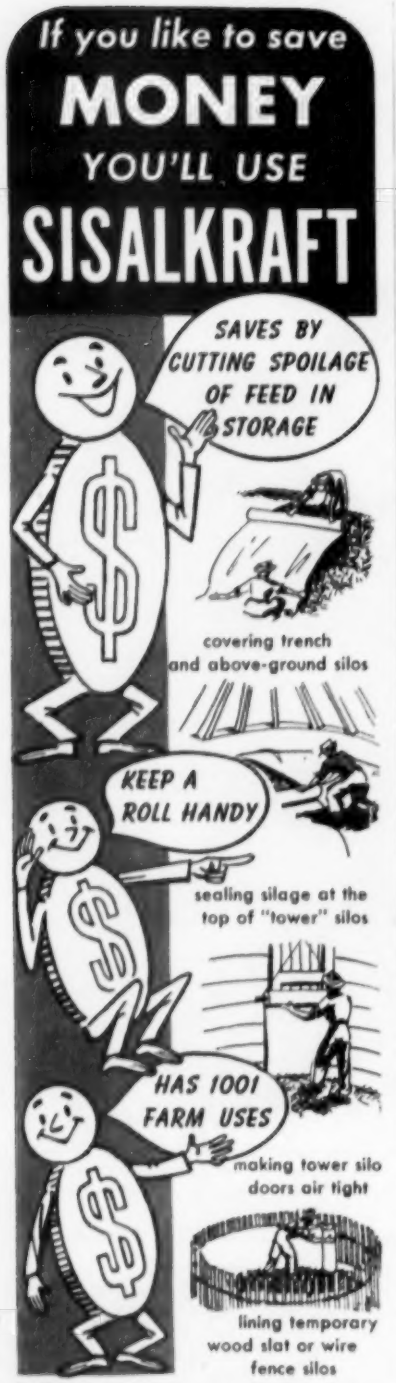
On our visit to Blair, Nebraska, we found this month's Farmer of the Future—Miss Patricia Kuhr—out taking care of her chickens. This is only one of the many projects Pat has made a part of her life.

Purina is constantly improving and developing new Chows . . . better feeds and feeding methods for farmers of today and the future.

The answer may come from Purina's research scientists next month, next year, or maybe not for several years. But it is this spirit of scientific research and development that has made Purina Chows the choice of feeders everywhere. And whatever type of livestock or poultry you are feeding, there is a specialized feeding plan, based on Research-tested and proved Purina formulas, that can help you get more from what you have! Ask your Purina Dealer—he's the man at the Store with the Checkerboard Sign—to tell you more about Purina Chows!

The Future of Farming Depends on Today's Youth!

RALSTON PURINA COMPANY Checkerboard Square • St. Louis 2, Mo.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sealing silage at the top of "tower" silos
HAS 1001 FARM USES
making tower silo doors air tight
lining temporary wood slat or wire fence silos
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TOUGH WATERPROOF
PAPER
At Your Lumber or Building Material Dealer
AMERICAN SISALKRAFT CORPORATION
DEPT. BF-5, ATTLEBORO, MASS.

"I won't mention any names—but somebody forgot to feed the chickens!"

those who seem to interpret this as meaning "We must not promote, suggest or even mention the advantages of co-ordinating our farm safety efforts at any level because that might sound like we are trying to dictate a program."

People who raise this objection should be the first to make a liberal contribution to a fund to hire the additional personnel necessary to supervise "all" these locally inspired programs—and to re-inspire them each year.

Recently a home demonstration agent told me how much it had meant to some 4-H girls to have a lesson on "Hazards in the Medicine Cabinet" at about the same time their mothers had discussed the subject in a Home Demonstration Club meeting. The problem then seemed more important—especially to the girls—and together they accomplished more than if no co-ordination had existed.

Plan Is Flexible

Yet this plan allows plenty of room for local and state variation as conditions warrant. *It does not prevent any group or individual from tackling a safety problem that is really important.* However, organizations and individuals that will do a good job on *all* phases of safety *every* year are very scarce indeed. Planning our entire program to fit them is wishful thinking and a waste of time and materials.

It's very easy to be satisfied with isolated safety success stories. A 4-H club in one county or a FFA chapter in another county can usually be found to point out the excellent safety work being done by our rural young people. But there may be several 4-H clubs in the same county that have no safety program at all.

Through uniformity we will get some safety activity in most 4-H clubs thereby increasing our potential for future shining examples. At the same time, we will be able to keep alive the few good programs we already have and even add to their effectiveness.

Need More Workers

All states could effectively use more full-time farm safety workers. Many have none at all and a few don't even have a state farm safety committee. Possibly this last group would benefit most of all by a National Farm Safety Program. Certainly someone would be available to *adapt* materials and help administer a program but who doesn't have time to *prepare* all the necessary materials and carry the whole publicity load.

Let's Start in '57!

I suggest that we start on such a plan in 1957. Here are some possible suggestions for emphasis in the next four years: In general, they are arranged with the items for major emphasis near the top of each annual list.

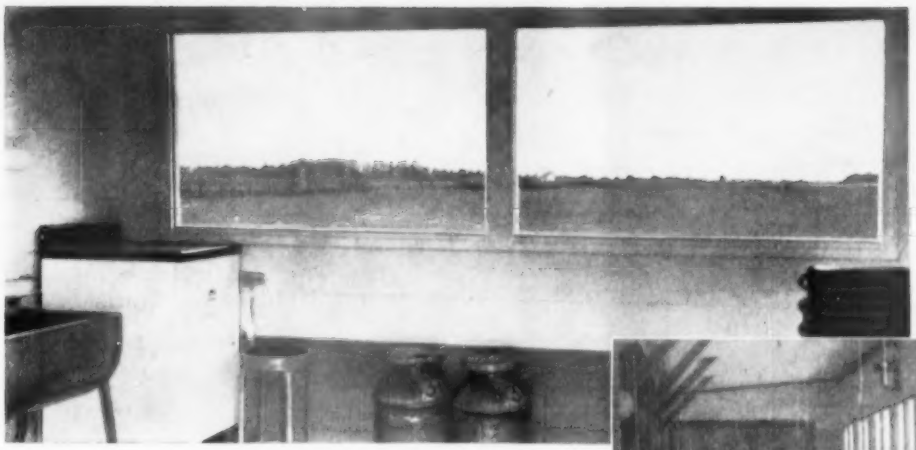
1957	Traffic Safety
	Fire Prevention
	Electrical Shock
	Explosives
1958	Harvesting Equipment
	Fire Fighting
	Livestock
	Recreation
1959	Tractor
	Correct Lifting
	Poisons
	First Aid
1960	Falls
	Cooking Safety
	Farm Machinery
	Farm Shop

No doubt several subjects should be given *some* attention every year. With this plan all phases will receive *special* emphasis about every four years.

We Need Coordination

Even with our present haphazard approach we are making progress in farm safety. If we would only co-ordinate our efforts, we could do so much more. The time to plan a statewide farm safety program is *before* we have several counties started off in different directions. Likewise, National co-ordination will be much easier before each state has its own program.

It was tough for the 13 colonies to agree on a Constitution for the original 13 states. It would have been even more difficult if there had been 48 states involved—especially if these state constitutions had been established for several years. We're still in the "colony" stage with our farm safety programs. *Let's not wait until too many states are involved to get together on farm safety.—End*



Solar milkhouse stays comfortable in winter. Good daylighting helps promote sanitary conditions.

Solar poultry houses are warmer, drier in winter. Dryness means cleaner eggs, less fumes.

Why *Thermopane*® increases productivity and reduces costs in farm buildings

Thermopane insulating glass makes the solar farm building practical.

It brings in winter sun to warm the interior, and its insulating qualities retard outward flow of heat. This warmth promotes dryness, for the ventilating system is thus enabled to carry off more moisture.

Warmth and dryness pay off for the farmer in many important ways:

1. *Livestock is healthier*, and thus produces more.
2. *Drier litter* requires less frequent removal. Fumes are reduced remarkably, benefiting the livestock and workers. Drier litter in poultry houses means cleaner eggs—a timesaving and moneysaving factor.
3. *Maintenance reduced.* Sash and siding of a drier building are less likely to rot or rust.
4. *Heating costs are reduced.* In milkhouses, for example, some owners of solar buildings report that the auxiliary heater rarely comes on. The sun and *Thermopane's* insulation do the job.

There are three principal requirements in getting these benefits: (1) Large windows, facing south, with shading to keep out summer sun; (2) Good insulation with *Thermopane* to retard outward flow of heat; (3) A good ventilating system to remove moisture.

We have prepared folders which explain the function of solar farm buildings. These and other helpful material (such as the Pennsylvania State College report on poultry buildings) are available. Mail the coupon for them.

Farm Thermopane is sold by L·O·F Glass Distributors and Dealers throughout the country.

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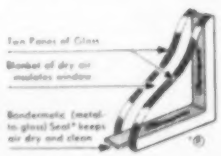


Libbey-Owens-Ford Glass Co., Dept. 1956
608 Madison Ave., Toledo 3, Ohio

Please send me information on solar farm buildings and *Thermopane*.

Name _____
(PLEASE PRINT)

Street or R. R. No. _____

Town _____ State _____

Newsletters Influence Farmers . . .

if they are read!

Here are field suggestions by ag leaders on how to improve them

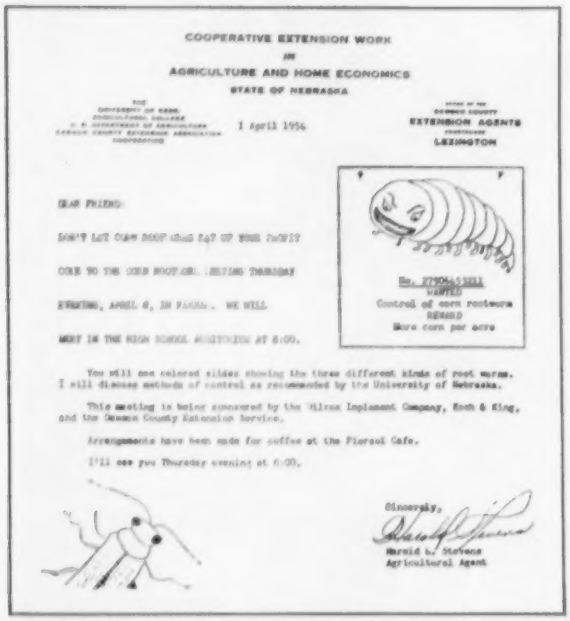
● AGRICULTURAL LEADERS who entered Better Farming Method's Circular Newsletter Contest agree that circular newsletters are an ideal way to inform the public of meetings, give out information, pass out general promotion material, and to follow up office and farm visits.

Why do they think circular newsletters are such good promotion material? It is because they do a thorough job. They contact every person who needs to be contacted. They are put into the mail boxes and homes.

However, this is only half the job. It must also be read. In order to have a newsletter read, ag leaders stated that the following points in newsletter writing must be followed:

(1) The newsletter must attract attention and be appealing to the eye. This is usually done with an attractive heading or title and a clever illustration.

(2) It should be short, concise, and easy to read. This means get to the point, give all the facts, and do it in



COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF NEBRASKA

EXTENSION AGENTS
LEXINGTON

1 April 1956

DEAR FRIEND:

DON'T LET CORN ROOT [illegible] EAT UP YOUR PROFIT

COME TO THE CORN ROOT-OR- [illegible] THURSDAY

EVENING, APRIL 5, IN PLEASA. WE WILL

MEET IN THE HIGH SCHOOL AUDITORIUM AT 8:00.

You will see colored slides showing the three different kinds of root worms. I will discuss methods of control as recommended by the University of Nebraska.

This meeting is being sponsored by the Wilcox Implement Company, Roth & King, and the Gosman County Extension Service.

Arrangements have been made for coffee at the Pierced Cafe.

I'll see you Thursday evening at 8:00.

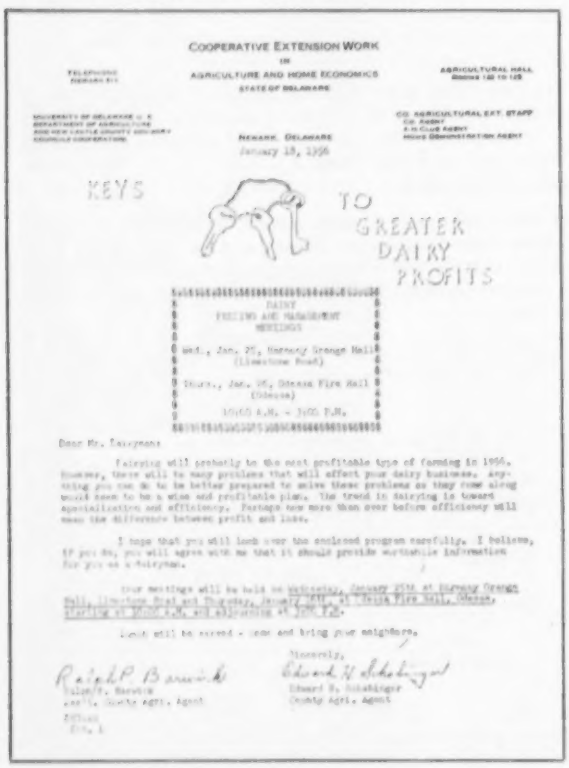
Sincerely,
Harold L. Stevens
Agricultural Agent

Control of corn rootworm
More corn per acre

THIRD PRIZE—Here again, a different, eye catching approach does the trick. Information is complete, yet to the point.

FIRST PRIZE—(Below, right) The newsletter attracts the reader and keeps him attracted. It has a unique approach. One criticism: Don't run the type into the illustration.

SECOND PRIZE—This newsletter attracts the reader by appealing to his pocketbook. It tells the dairyman that for a small investment of time, he can reap larger profits.



COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF DELAWARE

AGRICULTURAL HALL

NEWARK, DELAWARE
January 18, 1956

KEYS TO GREATER DAIRY PROFITS

DAIRY
FEEDING AND MANAGEMENT
MEETINGS

Wed., Jan. 25, Harmony Grange Hall (Limestone Road)

Thurs., Jan. 26, Odessa Fire Hall (Odessa)

10:00 A.M. - 3:00 P.M.

Dear Mr. Dairyman:

Dairying will probably be the most profitable type of farming in 1956. However, there will be many problems that will affect your dairy business. Anything you can do to be better prepared to solve these problems as they come along would seem to be a wise and profitable plan. The trend is dairying is toward specialization and efficiency. Perhaps now more than ever before efficiency will mean the difference between profit and loss.

I hope that you will look over the enclosed program carefully. I believe, if you do, you will agree with me that it should provide worthwhile information for you as a dairyman.

Our meetings will be held on Wednesday, January 25th at Harmony Grange Hall, Limestone Road and Thursday, January 26th at Odessa Fire Hall, Odessa, starting at 10:00 A.M. and adjourning at 3:00 P.M.

Look will be served - come and bring your neighbors.

Sincerely,
Edward H. Steinlinger
County Agri. Agent

Ralph P. Bennett
Ralph P. Bennett
Kent & County Agri. Agent

RPB:mh
Enc. 1

COOPERATIVE EXTENSION WORK
in Agricultural and Home Economics

AGRICULTURAL EXTENSION SERVICE—COUNTY AGENT WORK

STATE of ILLINOIS
404 SOUTH WATER STREET
DECATUR, ILLINOIS

November 7, 1955

CORN CRIB

Attention: All Farmers and Dealers in Grain and Feed Bats

Grain is in the bin and you are ready to take out your share either with the basket or thru the corn sheller. There is always a second character who must have his share. That is Mr. Rat. He not only takes his $2 worth each year but he contaminates another $70 worth of grain. This fall rats will move into your various buildings to take harbor for the winter.

What can we do to help? We would like to conduct a rat banquet so that all the rats in the county will have a fair meal on November 22 and 23. You can pick up your Warafarin rat poison at any one of the vocational ag departments, namely: Blantic High School, Argenta High School, Macon High School, Macon High School, Warrensburg High School, Blue Mound High School and Mt. Zion High School.

To bait the average farmstead it takes approximately 10 pounds of Warafarin for the average. An additional amount is needed if you have an extra large number of buildings. We can distribute the bait for 50 cents a pound.

Enclosed is a card to return. Please check where you wish to pick up bait. Please return this card by Thursday, November 17. ACT NOW!!!

Yours truly,
W. E. Wyers,
Macon County Farm Adviser

WEW/cp
enc.

WEEVIL BREEDING GROUND—This photo of a Texas cotton field shows how snow helped protect the heavy weevil population which went into hibernation. Conditions in many cotton-growing areas were ideal for high survival of boll weevils and other cotton insect pests.

WEEVILS SLEPT HERE LAST WINTER; PROTECT YOUR CROP WITH TOXAPHENE

Ideal conditions for the overwintered boll weevil and a mixed population of other pests—coupled with new government regulations—make it more important than ever before to get the most from every acre planted to cotton this season.

Cotton growers have learned from last year's experience that early-season control of insects with toxaphene pays off in higher yields at picking time. Many farmers who used toxaphene regularly throughout the season obtained excellent weevil control—even in those sections of the cotton belt where infestations were extremely heavy. Some of these farmers reported the highest yields per acre in their experience.

This year every boll counts. Toxaphene applications will protect the crop all through the season. Dealers now have supplies of this dependable insecticide to meet the requirements of their customers.

TOXAPHENE dusts · sprays

THE CHEMICAL BASE FOR TOXAPHENE IS PRODUCED BY HERCULES FROM THE SOUTHERN PINE

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SMITH Ritesize SPRAYER

"The ladies' choice." Light weight. Operates easily. 5 ft. oil proof hose enables user to set sprayer on ground and cover wide area. Adjustable nozzle. Unsurpassed.

Many Other Styles and Sizes

SMITH
PESTMASTER GARDEN Duster

World's lightest, smoothest and easiest working insecticide duster. Weighs 1½ lbs. Non-rust, all metal construction. One filling dusts 200 rose bushes. Throws 8 ft. dust stream. Nothing matches it. Fast seller.

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ORDER BY MAIL

Keep Crop Destroyers ON THE RUN!

The Original CAW-CAW Firecracker FUSE ROPE

Small Cost—
Big Protection Against Bird and Animal Damage!
Specially twisted fuse rope explodes firecrackers or cherry bombs at timed intervals in fields. Slow-burning—one 48-ft. hank covers 6 to 8 acres for 96 hours. Easy to use—insert firecracker fuses in rope strands, hang on tree limb or stick. Recommended by county agents and agricultural colleges.

SALUTES, CHERRY BOMBS, FIRECRACKERS
If your state requires permit, your nearest fireworks dealer can supply details. Name of fireworks dealer near you on request.

ORDER TODAY!
Six 48-ft. hanks $7.20 (West of Miss. River $7.60)
Twelve 48-ft. hanks $13.80 (West of Miss. River $15.00)
Send check or M. O. for post-paid shipment.
DEALERS! Write for details!

J. E. FRICKE CO.
Dept. BF-4, 40 N. Front St., Phila. 6, Pa.

1956 Salary Summary for all ag leaders
See pages 54-55

a short and snappy manner. In addition, ease of reading means being well mimeographed or printed, the right selection of harmonizing colors (if they are used), and an eye pleasing type and makeup.

Be Personal in Appeal

(3) Make a personal appeal in the newsletter. Show the reader how he may benefit in some way in following the information in the letter or attending the meeting announced. Also show him how easy it is to gain these benefits.

(4) Avoid repetition and make each newsletter as different as possible. This includes varying follow-up letters concerning similar subjects.

(5) Many ag leaders prefer to print their newsletters with mailing permits on them. They find that this saves a lot of wear and tear on their valuable secretary.

Worth Time Investment

Although ag leaders agree that the preparation of a circular newsletter is no easy job and is one that is frequently "sweated out", they firmly believe that the results obtained with newsletters are well worth the work investment. For, like anything else, the results they get from their newsletters are as good as the work they put into them.

Here are some actual comments by ag leaders on how they compose and use circular newsletters in their work.

Underlining Helps

"In writing circular letters I have found an introduction and summary to be very important. I have also found using large headings and underlining important phrases to be beneficial. By using this method a busy person will take time to glance at the introduction, headings, key points, and summaries, while the armchair reader will also tend to get a little more interested in seeing a letter that is written this way."—*Bud Thomas, associate agent, Missouri.*

"I have used newsletters in our 4-H program to stimulate interest, convey project information, and give recognition. To have an interested 4-H'er, you must stimulate his interest by letting him know what is going on in the county. Above all, newsletters are an excellent means of giving recognition to 4-H'ers. Each member recognizes the accomplishments of the others."—*A. F. Cribbett, assistant county agent, Florida.*

"Individual office, phone, and field calls are the key to newsletter subject matter. If several farmers voice a common problem I assume it is a general problem to most farmers. I attempt to give recommendations of how to handle the problem. If 'university recommendations' are not available, I explain how some successful farmer has handled this specific problem. Effective newsletters are not just written, they are 'sweated out'."—*Otis L. Lough, assistant county agent, Arizona.*

Vo-Ags Use Them

"I find the newsletter is an excellent device to inform the parents of my students, school officials, and other interested people of happenings in the vo-ag department; combat rumors concerning the department and FFA Chapter; and as an aid in establishing and maintaining interest of the students and their parents.—*L. R. Armstrong, vo-ag teacher, Texas.*

"I consider the newsletter to be one of the more important tools for the teacher of vocational agriculture, even more important than the newspaper, radio, forge, shaper, or projector. Newsletters help our farm people attain higher standards of living and answer their questions more than any other teaching device I may use."—*Oliver O. Manning, agriculture teacher, North Carolina.*

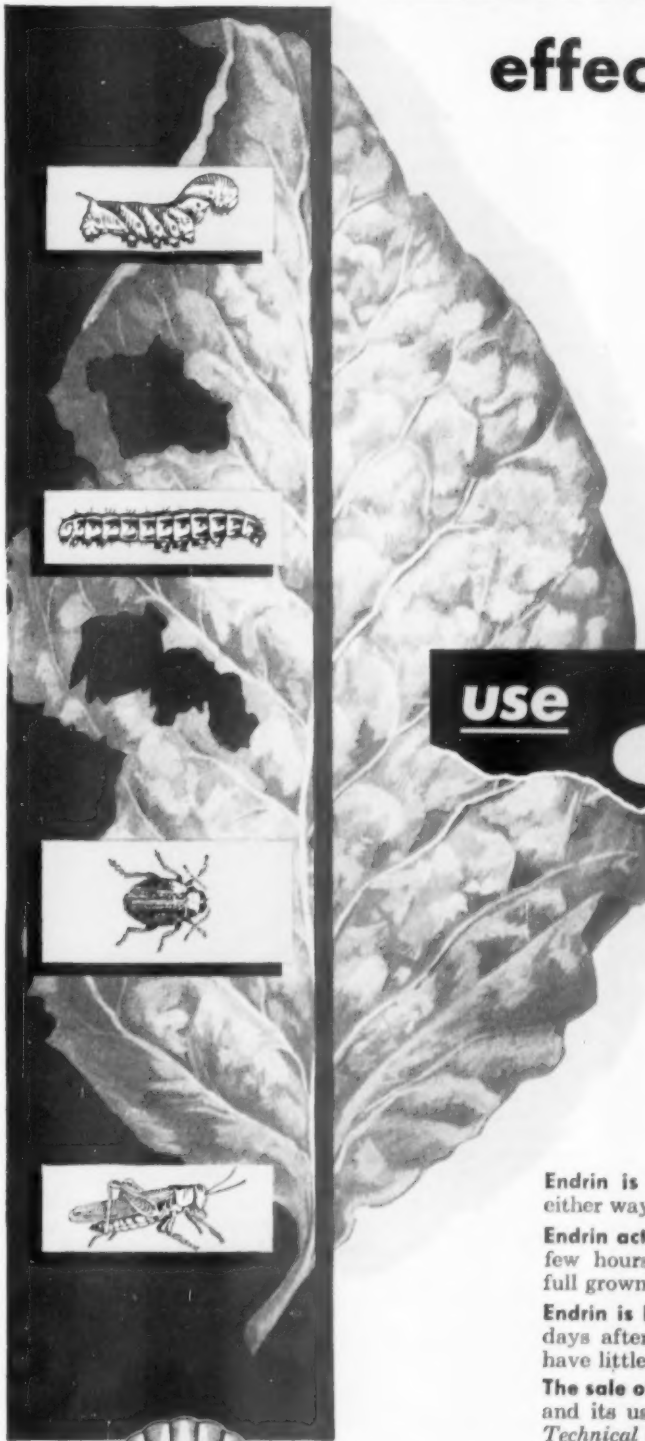
Visit County Farmers

"I try to visit 8 or 10 different citrus growers each month and get an idea of their operations and opinions. Then I try to pass these along in my Newsletters, mentioning names and local conditions, thus putting the Newsletters on a more personal basis. Not all of our 1,000 growers go on tours, listen to the radio, etc., but I reach each one once a month by a Newsletter."—*H. F. Swanson, assistant county agent, Florida.*

FHA Supervisor Speaks

"In a supervised agricultural credit program it is essential that the cooperation of farm families be gained. One of the best ways to promote this idea of farm cooperation has been to show that there is agreement among agricultural agencies serving the rural people. Once the farmers gain the respect of your intentions, there is little question in regard to their acceptance of new ideas. Since newsletters are an expression of the personality of the office, we have found that our FHA farm families will read attractive colorful newsletters crammed with helpful hints and timely suggestions."—*Sam H. Bailey, Farmers Home Administration, South Carolina.*—*End*

For longer lasting, more effective protection



against

HORNWORMS

BUDWORMS

FLEA BEETLES

GRASSHOPPERS

use endrin

FOR YEARS, hornworm and budworm have had things pretty much their own way in ravaging tobacco fields. Now they've met their master—endrin. Endrin knocks out hornworms, budworms, flea beetles, and grasshoppers in a hurry—and takes care of other major pests as well. Growers find that endrin provides dependable all-season tobacco pest control.

Endrin is easy to use. Apply endrin in a dust or spray—either way, growers get effective control.

Endrin acts fast. Endrin's lethal action kills worms in just a few hours after application, even when they are nearly full grown.

Endrin is long lasting. Endrin controls effectively for many days after application. Even high winds and hot weather have little or no effect on endrin's long-lasting protection.

The sale of endrin is backed by the finest of technical service, and its use is accepted by state and federal governments. *Technical information on endrin is available. Write to:*

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SHELL CHEMICAL CORPORATION

AGRICULTURAL CHEMICAL SALES DIVISION

460 Park Avenue, New York 22, New York

ATLANTA • HOUSTON • SAN FRANCISCO • ST. LOUIS • NEW ORLEANS

Newspaper Praises Agent

The hard work done by extension workers does not always go unappreciated.

As evidence, consider this editorial from the Mouse Rivers Farmers Press, North Dakota. The tribute is to Alvin Kramer, McHenry county, North Dakota extension agent.

"Did you ever stop to think that there is at least one man in our county who really goes way above and beyond the call of duty to earn his salary? That person is our county agent, Al Kramer. He's on the go from morning 'til night and many times works long after the rest of us are soundly wrapped in slumber in order to complete all the things that are handed out to him to accomplish. If nothing else, the work he has done with 4-H groups in the county would entitle him to an extra rose in his crown.

"Extraordinary efficiency has a way of being discovered and it's not long until the person possessing that ability is called upon to act in a great many capacities in a community. Just such a person is Kramer and when matters are turned over to him one may be sure that they will be handled in a highly efficient manner.

"We are lucky to have him working with farmers and ranchers of McHenry county as well as with the boys and girls of 4-H groups and all of us hope that we can keep him for a long, long time."

4-H Leader Program

Anoka County (Minnesota) extension agents in attempting to make their 4-H Leader training more effective put a "new look" on the bi-monthly Leaders Council meeting.

The incorporated organization made up of voluntary adult and junior 4-H leaders had been taking a whole evening to conduct the business of the county 4-H program. Training more often than not was accidental and incidental. In addition the meeting was a poor example of how to conduct a meeting.

This "new look" in leader training sets up a schedule for a half hour session in agriculture and another in home economics given at the same time *at the beginning* of the meeting. Each club is asked to bring at least two leaders. The agricultural and home agents are responsible for this training while the 4-H club agent, Fred Kaehler, devotes his time to straightening out committee problems and other 4-H administrative details.

Here is an example of this type of meeting. Dick Swanson, agricultural agent, gave a lesson on the forestry project while Marie Stanger, home agent was training junior and adult leaders in judging bread. At the same time the 4-H club agent worked out several routine Leaders' Council administrative problems. After the training the business meeting was conducted with zest, encouraged by the promise of coffee.

The agricultural agent and home agent, while responsible for the training, may ask others to do it. For the January, 1956, meeting a local hardware dealer gave the ag training with a demonstration on care and use of tools.

Swanson, Kaehler, and Miss Stanger feel that results come promptly from such training both in better projects and better Leaders' Council meetings.

These agents are making plans for the New England Association of County Agents' Convention that will be held in Maine. (l-r): Fred Webster, Waldo county; Whitney Hodgkins, Kennebec county; Charles Eastman, Androscoggin-Sagadahoc counties, and Harry Trask, Cumberland county, all from Maine.

Pennsylvania Elects Mitchell

William O. Mitchell, Clearfield, Pennsylvania, county agent, was elected president of the Pennsylvania County Agent's Association at its annual meeting.

Mitchell, who has been vice president, succeeds William A. Ross, Smethport, Mckean county. James E. McKeehen, Honesdale, Wayne County, was elected vice president to succeed Mitchell. Harry S. Sloat, Lancaster county, was elected secretary-treasurer as the successor to John B. McCool, Lock Haven. McCool, formerly county agent, Clinton county, resigned that position recently to become manager of the Pennsylvania Farm Show.

Three officers and two directors elected—Cornelius E. Koppenheffer, Emporium, Cameron county, and Ira L. Yoder, Middleburg, Snyder county—comprise the association's board of directors.

Gone Were the Dogs

Kansas County Agent Danny Trayer, went "under ground" to make the farm families of Hodgeman county a $6,000 saving this past year.

The seriousness of the prairie dog damage caused the Hodgeman county people to seek a solution to the problem in order to save their 400,000 acres of native pasture from destruction.

Realizing the destruction prairie dogs can do to pasture, the county extension agent, upon recommenda-

County Agent Danny Trayer

tion of his extension planning committee, worked "hand-in-hand" with each of the township trustees in an eradication program. Township trustees agreed to pay for the materials that it would take to control and destroy the prairie dogs.

George Halazon, extension wildlife specialist, Kansas State College, was called in to "set-up" methods for eradication and control.

One out of five of the 580 farmers in Hodgeman county spread poisoned bait obtained from the township trustees. They followed this with a grain fumigate gas treatment of dog towns.

With the assistance of a local FFA Chapter, farmers treated over 2,000 acres in a three-day period during March. Five of the townships showed enough interest in the prairie dog eradication program to hire professional help to obtain 100 percent township control.

"It's difficult to estimate the entire

More bushels . . . seed clean

Every farmer knows the feeling of deep satisfaction that comes from a high-yielding crop bouncing off his shovel — solid weight that makes the metal ring.

That shovel test tells a great deal about an Allis-Chalmers combine. There's a difference in the surprising surge of extra bushels — harvested cleanly even from stubbornly-lodged or weedy fields.

Now comes bigger news — a real scoop in farming! This year, Allis-Chalmers offers a choice of machines in all three combine fields, a cost-cutting, bin-filling harvest for every crop and acreage.

Now for every farm, whatever its size, there's a combine bearing the greatest name in harvesting . . . at a right price.

This year there's more reason than ever before to own a new Allis-Chalmers combine. The nearest Allis-Chalmers dealer will be glad to supply full information.

ALLIS-CHALMERS, FARM EQUIPMENT DIVISION, MILWAUKEE 1, WIS.

Leaders in all 3 combine fields

1. **"Big-Bin" ALL-CROP Harvester**
   6-ft. Model 66 for more than 100 crops, including grain, beans, sorghums, grass and legume seed, peanuts.
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   9-ft. and 12-ft. Model 100 ALL-CROP Harvester
   10-ft. and 7-ft. Model T GLEANER-BALDWIN combine.
3. **"GIANTS OF THE HARVEST"**
   14-ft. and 12-ft. Models A & R GLEANER-BALDWIN combine.
   12-ft. Model B GLEANER BALDWIN combine (Rice Special).

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BETTER FARMING METHODS

Mount Morris Illinois

value of the prairie dog eradication program, but each farmer who cooperated estimated that it was worth more than a one-year pasture bill to them," said Trayer.

Texas Agent Dies

John Barton, 62, one of the best known Texas county agricultural agents for the past 31 years died in February after several weeks of poor health.

Barton began his work with the Texas Extension Service as a county agent in Commanche county in 1922. After 12 years he transferred to Runnels county where he served until his retirement last fall.

After graduating from Texas A&M College in the spring of 1917 he served his country as an officer in World War I.

Barton received the distinguished Service Award from the National Association of County Agricultural Agents in 1944. In 1949 he received the 25 year service award from Texas A&M College. On May 15, 1951, he received the Superior Service Award in Washington from Secretary of Agriculture Charles A. Brannan.

Barton emphasized soil conservation during his long tenure of service to the farmers of the two counties. It is estimated that he helped to run at least 1,500 miles of terrace lines. He was also noted for better seed, community organization, and better beef and dairy sires.

Young Farmers Hold the Line

The Taylor county, Kentucky, Junior Farm Bureau, the first organized in the United States in 1934, once each quarter has a potluck supper with wives and sweethearts.

Leaders are developed in this younger farmers organization. Monthly meetings are held—annual programs are set up—goals are set down. The organization consists of 71 younger married farmers too old for 4-H, not old enough to feel at home among older groups.

Each boy carries out some new demonstrations such as a new variety of tobacco. President Theodore Cowherd is trying out a new antibiotic in feed for beef cattle this year.

Ten carried new tobacco treatment, five were leaders for 4-H clubs, fifteen helped carry out plans and helped organize and keep going the District 4-H and FFA Show, and helped in the Taylor County Fair. Their goal is to turn the latest scientific facts of research into practical dollars on the farm.

County Agents Help Show

The 1956 Pennsylvania Farm Show was a success.

Part of the success is due to the work and support of the Pennsylvania county agents. This year 76 county agents, associates, and assistants participated in the educational phase of this mammoth, indoor show.

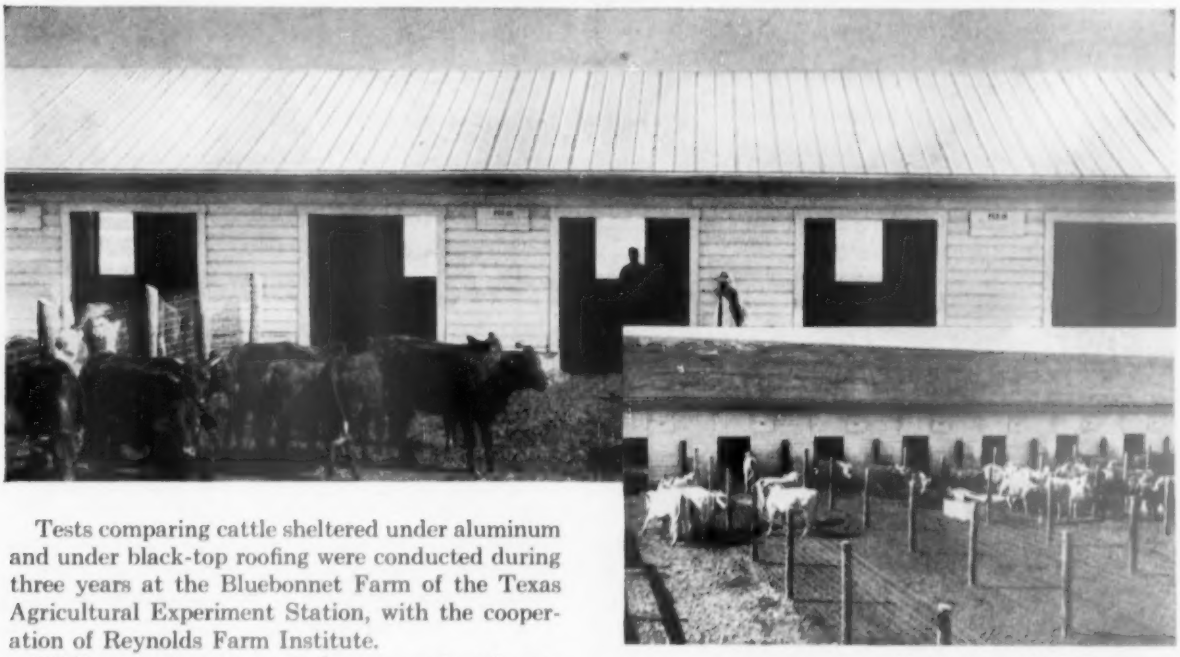
Just imagine 14 acres of show building under one roof and one can easily see the numerous tasks and opportunities for service that are available for agriculture extension agents.

On the left, R. H. McDougall, vice-president, National County Agent Association and Butler county agent is clerking the judging of small grain. Leonard Yearick, Northumberland county agent, right, is ready to assist with placing of samples.

Potato judging is one of the big features at the show. Bert Straw, Potter county agent, is putting a placing on a sample while E. G. Ellenberger, Lehigh county agent, is recording the placing.

In addition to helping with the educational exhibits, the agents are busy assisting with the showing of livestock, grains, apples, fruit, poultry and eggs, honey, and maple products. On these various divisions of the show, the Agricultural Extension Agents help clerk, distribute ribbons, judge, and also to act as liaison agents between the exhibitors and the Farm Show Commission.—*End*

Texas Cattle Tests show Greater Weight Gain under Aluminum



Tests comparing cattle sheltered under aluminum and under black-top roofing were conducted during three years at the Bluebonnet Farm of the Texas Agricultural Experiment Station, with the cooperation of Reynolds Farm Institute.

While no statements made here are to be taken as endorsement by Texas A.&M. of any product, test results definitely showed cooler temperatures and better weight gains under aluminum. In the 3-year period of testing, the average yearly gain was 10 lbs. per head under aluminum. In one 140-day feed test period, weight gain was greater by 25 lbs. per head.

Test conclusions also noted the minimum maintenance required with aluminum and the excellent condition of the roof after three years.

You, too, can increase livestock and poultry production with heat-reflective aluminum. You can save painting and maintenance money because aluminum never rusts. And you'll always have a roof good as new. Find out how little it costs with the new labor-saving 48" wide sheets of Reynolds Lifetime Aluminum Corrugated. See your dealer.

Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.

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ALUMINUM

See "FRONTIER," Reynolds great dramatic series, Sundays, NBC-TV Network

(Test barns are identical structures 25' x 177', one black-top roofed as shown in smaller photo, the other aluminum roofed.)

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- ☐ 16' x 20' Cattle Shelter .25
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- ☐ 40' x 60' Pole Cattle Shed $1.00
- ☐ 20' x 60' Pole Lean-To 1.00
- ☐ Shaded Self-Feeder .25
- ☐ 40' x 60' Pole Utility Building 1.00
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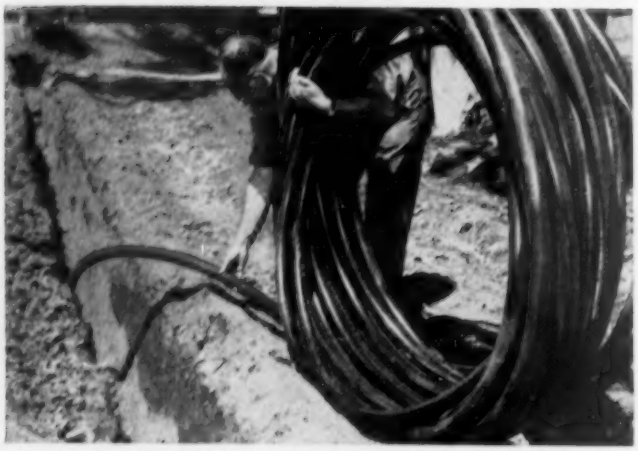
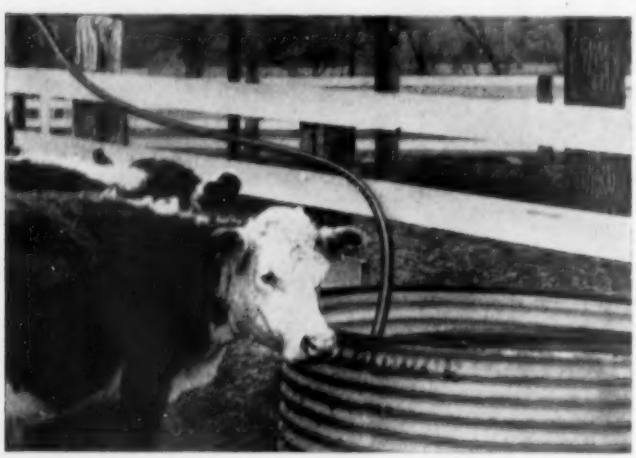


● Pipe of Du Pont "Alathon" 25 gives you the durability so necessary for permanent, long-lasting installations.



● Pipe of Du Pont "Alathon" 25 gives you the flexibility you need to keep pace with changing water requirements.

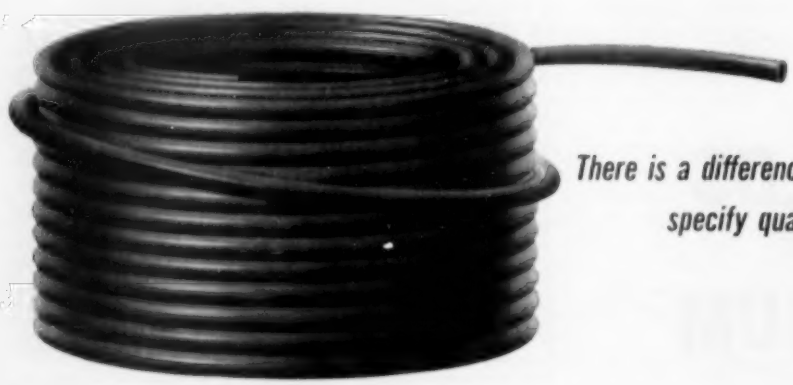
ON THE FARM nothing is more important than water. Chemically, four-fifths of a farm's produce is water. Getting water where it is needed, when it is needed, is the farmer's most vital task. Flexible plastic pipe greatly aids the farmer in bringing water to all parts of his farm quickly, easily and inexpensively.

The immediate advantages of flexible plastic pipe are lightness in weight, ease of installation, and flexibility. It couples quickly without threading; the only tools required are a knife and screwdriver. It bends easily around corners and obstructions. One man is able to handle long, lightweight sections.

Farm pipe is subjected to repeated cycles of freezing, varying pressures and contact with corrosive soil chemicals. Pipe made from Du Pont "Alathon" 25—virgin polyethylene—has the durability to stand up under these conditions and give years of trouble-free service.

Du Pont "Alathon" 25 is specially formulated for pipe use. Because pipe made of "Alathon" 25 polyethylene resin has extra toughness and strength, it withstands rugged farm conditions.

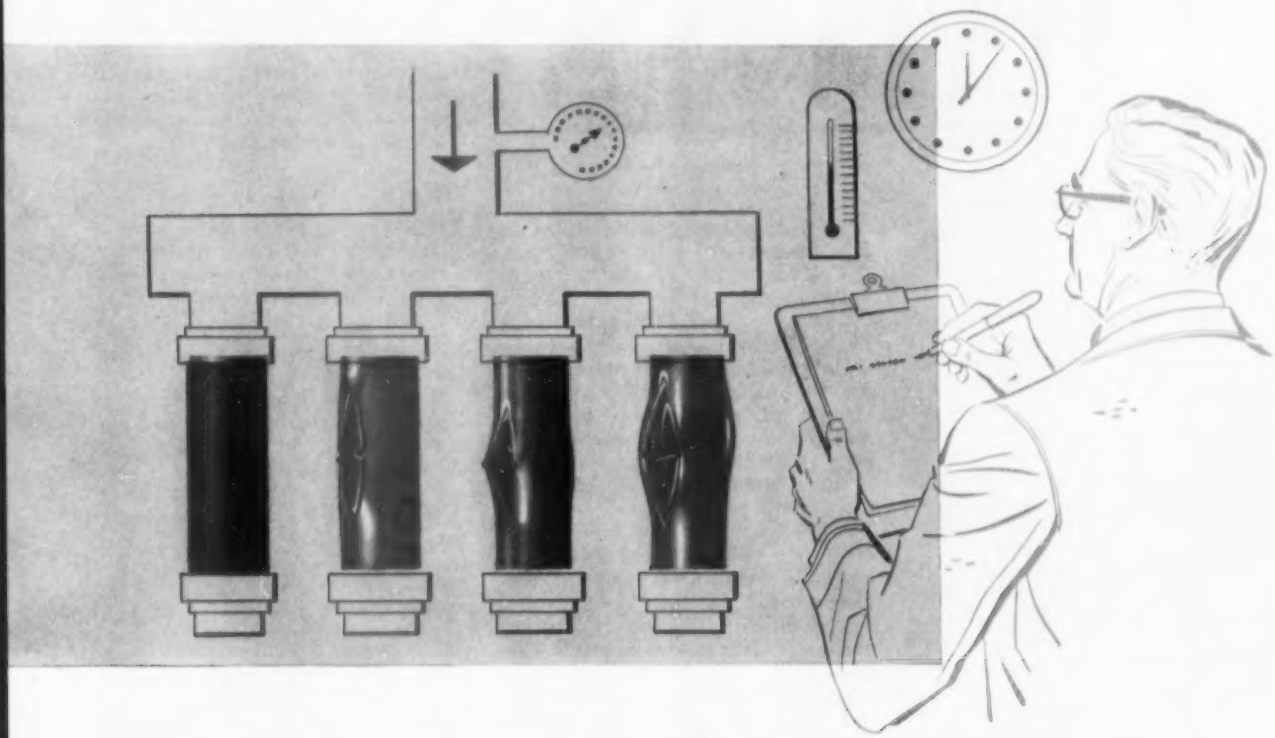
Whether you are helping plan a new water system or advising on the extension of one now in use, you can recommend a more durable and profitable solution to the problem with pipe made of Du Pont "Alathon" 25.



There is a difference in flexible plastic pipe . . .

specify quality pipe made of ALATHON® 25

about flexible plastic pipe



Pipe of ALATHON® 25 is extra-strong—extra-durable

Recently conducted laboratory tests proved the superior durability of pipe made of Du Pont "Alathon" 25. Polyethylene resins sold and recommended for pipe by five major materials suppliers were tested. Pipe was extruded from each under identical conditions. Sections from each pipe were then subjected to accelerated testing (a pressure of 172 lbs. sq. in. and a temperature of 113°F.). Only the Pipe made of "Alathon" 25 successfully passed the test. Pipe "A" failed in 3 minutes. Pipe "B" failed in 15 minutes. Pipe "C" failed in 19 minutes, and Pipe "D," the second best, failed in 7 hours. The Pipe made of "Alathon" 25 showed no signs of failure after 1,200 hours, at which time the test was discontinued.

SEND FOR FREE FOLDER — "Pipe Facts" gives you valuable information on flexible plastic pipe. For your free copy, write E. I. du Pont de Nemours & Co., (Inc.), Polychemicals Department, Room 395, Du Pont Building, Wilmington 98, Delaware.

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Field Reports on the NVATA

Vo-Ag District Program

An Iowa vo-ag teacher, William Stewart, outlines a successful district teacher program.

Here is a workable program other states might follow. Listen to what Stewart says: "As in all states, I presume, Iowa is divided into districts. This, I believe, is where the strength of the State Vocational Agriculture Teachers Association lies. We are organized quite well, and we get to know a larger number of teachers in a specific area with like problems and situations.

"But even more important is the next division, the four sub-districts within our districts. This is where the real 'meat' of professional growth and spirit abides. Our own group includes 14 schools.

"I'm sure that our group is not particularly unique. There are dozens in Iowa alone. I'm also certain that we aren't the best in the world for I've visited some that appear better.

THE SOCIAL HOUR . . .
A place for fellowship, too.

But I do know that it is one of the highlights in my monthly activities to get together with these men and 'talk over some of the problems.'

"At the beginning we just met and talked. We had a restaurant dinner (no women) and then adjourned to the high school vo-ag rooms.

"Some of us rebelled at that idea. As a result, we now have this standing schedule:

1. Meet at 7:30 p.m.
2. Bring wives and family upon invitation of host's wife.
3. Men have meeting in host school.
4. Women and families meet at host's home.
5. Men conduct meeting on topic or area previously planned.
6. At 10:00 return to host's home for light refreshments.

"It might be worth mentioning that we had to impose a limit on the amount of lunch which could be served—too much professional jealousy among the wives!

"Here briefly, is our schedule for the current year:

July—No sub-district meeting in area. We meet at State Conference and elect chairman, and plan date and place for first meeting.

August—FFA Officer's training meeting. Make outline of year's program.

September—Wives at special dinner and social meeting. Some colored slides of family pictures will be shown.

October-May—Host school man and one neighboring teacher responsible for presenting something stimulating, informative, and useful.

June—Family picnic.

"It may seem like only a skeleton, yet we always wish there was more time to visit and take care of additional business. This monthly event has top priority on our social calendar.

"If you are not already part of a group such as this, I would strongly recommend that you organize one at your earliest opportunity. It will stimulate your thoughts, and inspire your actions."

Consider This FFA Project

If you are searching for some new and different community service project, consider this activity carried on by the Spencer, Ia., FFA chapter.

They contacted owners of property where no one lived and where buildings were in very poor condition. Weeds and trees had been allowed to grow. The property was very unattractive besides being a good place to harbor rats.

The chapter tore down the old buildings, pruned the trees, and burned the trash. Then with the salvaged wood, they built objects for sale, such as rat traps and bait boxes.

By using the above plan, several important goals were attained. First, the chapter got some very important publicity and good will in the local community. Second, such a project created some excellent teaching problems, solved in the "learning by doing" manner. Finally, it became a small money making project for the local chapter through the sale of the bait boxes and other projects.

Magazine Display Case

To provide proper storage and display of magazines in vocational agriculture classrooms has always been a problem.

Ed O'Connell, vo-ag teacher, St. Cloud, Minn., solved his problem with this magazine rack.

The case was designed to fit below window level so is limited in height to 46 inches. It is 10 feet in length. The length of the case can be varied, but be sure and consider the width of magazines on the basis of 8, 10 and 12 inches in allowing space so you can get a neat display.

Storage of back issues in an orderly manner is accomplished by a six inch faced box under the display surface. The display surface is a door hinged at the back having a bead or lip to prevent magazines from sliding off. The design of this case also limits the area directly exposed to dust.

To make the name of the magazine on file and display easily read, place the magazine name on the front face of the storage bin.

Plywood of three-fourths inch thickness is used for all except the framing, top shelf, and display areas.

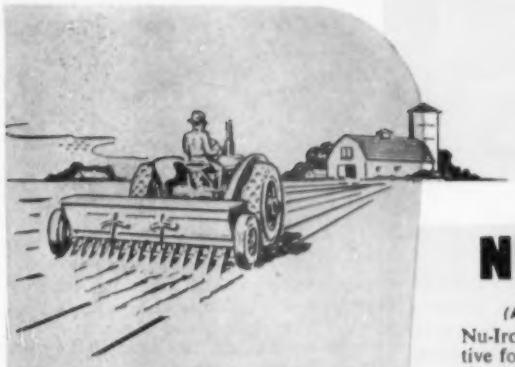
Display Colored Slides

An attractive, colorful display of 24 slides of FFA activities can be easily made for the vo-ag classroom at a cost of less than $5.

A box two feet square and six inches deep is constructed with a plywood bottom. A florescent bulb 18 inches long is placed in the bottom of this box. A piece of glass is then placed on top of the box as a lid. Strips of black masking tape are placed on this glass in both directions so that two inch squares are made.

Colored slides taken of students' FFA farming programs and shop projects are placed on the squares and another piece of clear glass is placed on top as a cover.

A switch installed on the front can be used to illuminate the display. The box is mounted on four legs and may be placed near the bulletin board.



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Nu-Iron is extremely effective for correction of chlorosis resulting from iron deficiencies . . . Results are noticeable shortly after Nu-Iron is applied. Easy and simple to feed to the plant through the leaves and stems by a direct application in spray or dust form.

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Nu-Z contains 53% metallic zinc . . . Can be applied directly to the plant in spray or dust form . . . Stimulates plant growth and corrects zinc deficiencies.

NU-MANESE

(Manganous Oxide)

An extremely effective nutritional manganese product for correcting manganese deficiencies due to low manganese content of the soil . . . Applied in spray or dust form.

COP-O-ZINK

(Nutritional Copper-Zinc)

This nutritional compound contains 48% copper and 4% zinc . . . Can be applied directly to the plants in spray or dust form. For correcting copper and zinc deficiencies and for stimulating healthier plant growth.

NU-M

(Nutritional Manganese)

A nutritional manganese compound to be fed to the plants through direct application in spray or dust form . . . To correct manganese deficiencies and to stimulate healthier plant growth.

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The essential mineral elements . . . Contains Manganese, Copper, Iron, Zinc, Boron and Magnesium, all essential to healthy, productive soil. Fruits and vegetables rich in vitamins cannot grow in soil poor in minerals. For soil application. ES-MIN-EL in spray or dust form for direct application to the plants is also available . . . Contains nutritional Manganese, Zinc and Copper.

WE WILL CUSTOM MIX MINERAL MIXTURES TO YOUR OWN SPECIFICATIONS IN LARGE OR SMALL QUANTITIES.

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Tennessee's Nu-Z, Nu-Iron, Nu-M and Tri-Basic Copper Sulfate are especially suited for use in preparing nutritional and fungicidal spray and dust mixtures and for use in mixed fertilizers.

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up to 66 feet WIDE
with one compact assembly

Easily mounted on tractor rear. Low cost unit for use where spray boom accuracy is not needed. Sprays to both sides or one side only. **Designed** by Spraying Systems Co. . . . producers of TeeJet Spray Nozzles. Made in all brass for general spraying and all aluminum for spraying liquid fertilizers. Write for Bulletin 71

SPRAYING SYSTEMS CO.

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THE MODERN WAY TO WEED CONTROL, 16 mm., sound, color, 24 minutes, 1956. Produced by Pacific Coast Borax Company and available from Modern Talking Picture Service, Inc., 45 Rockefeller Plaza, New York 20, N. Y.

Here is a film that discusses the economic significance of modern methods of weed control, showing problems that may arise from lack of such control and the benefits to be gained by an intelligent, scientific approach to the problem. The film covers weed control from both the agricultural and industrial standpoint.

Here you will see in motion picture form the many benefits to be derived through chemical weed control methods. Illustrated are various types of herbicides and several methods of application. Considerable time in the film is devoted to actual scenes on experimental farms throughout the country where control tests were run.

Emphasis is placed on the importance of cooperative work among the Pacific Coast Borax people, state, and federal agricultural agencies. The importance of scientific tests in product formulation is also stressed.

Ag leaders will find this a valuable film for young and adult farm meetings on a very timely subject.

DAN TABER'S LEDGER, 16 mm., sound, color, 27 minutes, 1956. Produced by and available from Agricultural Extension Division, American Steel & Wire, 870 Rockefeller Bldg., Cleveland 13, O.

The way a farmer keeps his books tells how he looks at his fences, his fields, and the whole business of farming.

This is the story told by this new 16 mm. motion picture, "Dan Taber's Ledger." Actual demonstrations of how to build good farm fences are an important feature of the movie.

Filmed in the Northern Ohio farm belt with the aid of local residents and county agents, the movie portrays two life-long friends, Dan Taber and John Andrews, who farm adjoining halves of the same section of land. Doomed to comparison because of their similarity, the pair engage in friendly competition to see which is the better farmer.

Dan Taber's method of bookkeeping reflects the great value he places on the role high quality, well planned fencing plays in harvesting, conserving and restoring soil, and also acting as an "extra hand" on the farm. His records thus reveal why he is beginning to pull away from his friend Andrews. The movie emphasizes the fact that good fences, as long-term capital investment, don't cost—they pay.

THE HUNGRY HORDE, 16 mm., sound, color, 18 minutes, 1956. Available from Douglas Chemical Company, 620 East 16th Ave., North Kansas City, Mo.

This movie was made by Douglas Chemical to tell farmers, agricultural leaders, and other interested people about their new liquid grain protectant called Tetrakote.

The opening scene shows in dramatic fashion, the enemy in all of his nightmarish horror. It shows how the bugs enter, breed, and infest millions of bushels of stored grain each year and rob the farmer and the commercial elevator operator of millions of dollars.

After this eye-opening look at the enemy and how it operates, the film goes back to the beginning of the search for a solution to this costly problem. Then the discovery was made; a liquid that could be sprayed onto clean grain as it went into storage or onto grain that was being turned or resealed. Here, at last, was the first ray of hope in the long fight against these insects. But the battle was not won. Before this chemical could be released to the farmer, it had to be field tested and proved.

The tests proved that the liquid would do what it was intended to do . . . keep bugs out of the grain for a long period of time. Of equal importance to the discovery of the chemical itself, is the sanitation program that must accompany its use.

ZINC CONTROLS CORROSION, 16 mm., sound, color, 35 minutes, 1956. Available from the American Zinc Institute, Inc., 60 East 42nd St., New York 17, N. Y.

This new film presents a colorful demonstration of the general mechanism of corrosion as well as how zinc controls it. It gives pictorial evidence that a sound corrosion prevention program based on the use of zinc will lengthen the life of steel products, markedly reduce maintenance costs, and increase net earnings.

Through use of animation and color, the film shows how zinc functions to control the corrosion of iron and steel by acting as a barrier.—*End*

Tactile Repellency

gives Pyrenone* more power to protect livestock, stored grains and truck crops

Insect mortality isn't the only measure of a pesticide's effectiveness. Equally important is its power to deliver lasting protection.

Although the Pyrenone concentrates combine quick knock-down with high kill, they offer the added advantage of tactile repellency. Once applied, whether in spray or dust form, they cling to farm crops and domestic animals . . . thus tend to repel repeated attacks by insects *after* application.

Yet Pyrenone residues are virtually non-toxic to human beings and farm animals . . . are easily removed by normal washing.

Under the Miller Bill, Pyrenone (technical *piperonyl butoxide* and *pyrethrins*), CPR dusts and sprays (combinations of *piperonyl cyclonene, pyrethrins* and *rotenone*), Pyretox (1% *pyrethrum-impregnated* powder), pyrethrum and rotenone are exempt from the requirements of a tolerance when applied to growing crops. They may be used right up to the time of harvest.

For use on stored grains, *piperonyl butoxide* has an approved tolerance of 20 p. p. m. . . . and *pyrethrins* a tolerance of 3 p. p. m. These are the active ingredients of the Pyrenone protectants. Yet the quantities specified for use in the package directions are less than the tolerances granted under the Miller Bill.

Pyrenone protects both the crops—and the farmer's crop *investment!* For complete data, write the nearest office of Fairfield Chemical Division, Food Machinery and Chemical Corporation.

*Reg. U. S. Pat. Off., F. M. C.

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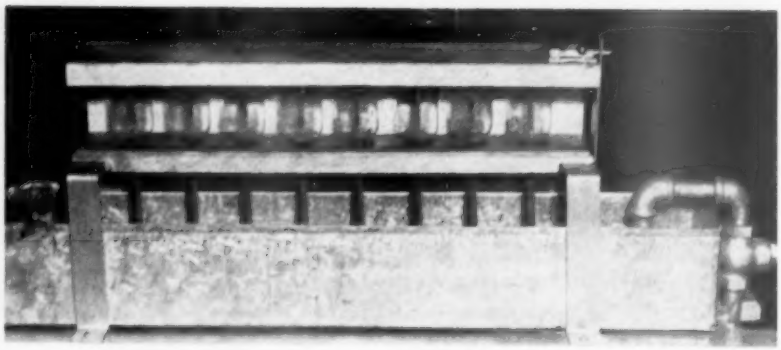
Here are facts on the...

Schain Detergent Butterfat Test

Effective, easy to perform, safe, preferred by students, long-range economy—all point with favor to this new and better way of butterfat testing.

By Marvin H. Erdmann
Vo-Ag Teacher
Baraboo, Wis.



HOMEMADE AND HANDY . . .
This bottle rinser is a time-saver.

● A NEW AND BETTER WAY of doing a job is something we are always interested in.

The new detergent butterfat tests offer us this opportunity. It may well be the answer to some of our faltering milk testing programs.

The Schain test, one of the newly perfected detergent tests, has proven highly satisfactory in the Baraboo agriculture department. The purpose of this discussion is to share with you some of our experiences and improvisions which we feel have helped us immeasurably in improving our milk testing program since adapting this test as our standard test in 1953.

Conduct Survey of Teachers

In an effort to more effectively evaluate the merits of the Schain and Babcock test in Wisconsin, a survey of the state was made. Under the direction of Dr. Walter T. Bjoraker, University of Wisconsin, 47 questionnaires were sent out to departments using the Schain test. Forty were returned with comments.

Results of the questionnaire are as follows: (Table at right)

Do the results of the Schain test compare favorably with the results of the Babcock test? Yes—36; no—4.

The six departments stating that the Schain test was more economical qualified their statement by saying that they considered *overall* economy and *not just cost of reagent.*

It is evident from the above results that the Schain test has been well received. However, a brief discussion on economy may well be in order.

Study Cost Comparisons

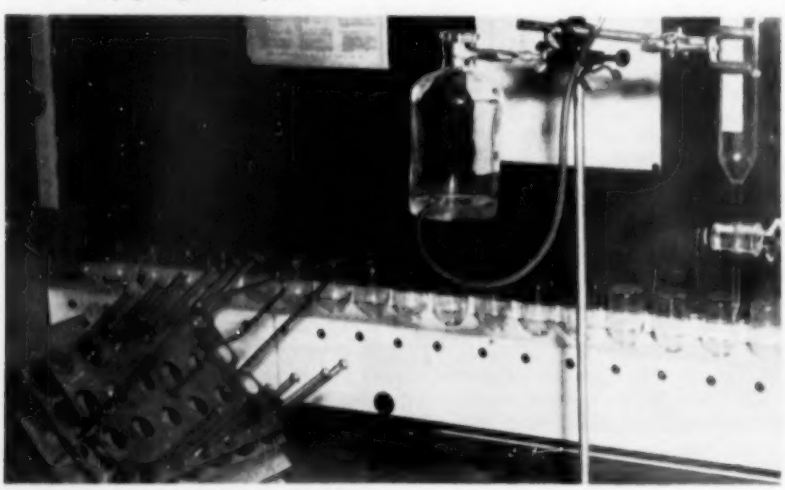
It is true that the initial cost of acid used in the Babcock test is less than the Schain reagent, *but the important costs are more.*

First of all, the laboratory must be built with the danger of acid kept in mind and must include acid-proof sink, plumbing, and cabinet top which represents a considerable investment. A centrifuge is also required which is not only costly, but will require extra space in the laboratory.

PREFERENCE

	Schain	Babcock
Safety	36	3
Economy	40	
Speed of Performance	6	31
Ease of Performance	36	3
Student Preference	37	2
	33	4

BURETTE AND BOTTLE . . .
They give greater speed.



It is also obvious that since the laboratory as well as the equipment is constantly exposed to a concentrated acid, depreciation becomes an important factor and replacement of certain pieces of equipment is all too frequent.

Breakage Is a Factor

We have found that because of more frequent handling, the Babcock test resulted in a higher percent of breakage. This breakage usually occurred while placing bottles in the centrifuge or while in the process of removing them. Bottles have also been broken occasionally while being centrifuged

Electric Conveyor with PRE-SET GATE-DUMPER

Saves Labor in Stacking Bales

Conveyor takes bale to runway at top of barn, from which it is dropped at desired place by presetting the gate dumper. Don Rogier *(left)* demonstrates labor saver to Malcolm Herbst, Texaco Distributor of Highland, Ill. Marfak lubricant keeps conveyor running smoothly, seals out dust and dirt, prevents wear and fights rust.

STACKING bales of hay in the barn of the Rogier stock farm, near Highland, Ill., has become an easy chore, requiring the work of one less man, since an electric conveyor with dumping device has been installed.

The conveyor takes each bale along the top of the barn. The operator merely changes the gate setting so that the bales are dumped where he wants them.

Dwight C. Rogier and his son Don have found that labor-saving machinery pays for itself. They have also found that *it pays to farm with Texaco products.* They like the neighborly service they get from Texaco Distributor Malcom Herbst.

In Town or on the Highway— in all 48 states, dependable Texaco service is available with these outstanding products: top octane Sky Chief gasoline, super-charged with Petrox, to give maximum power and reduce engine wear . . . famous Fire Chief at *regular* gasoline price, both 100 per cent *Climate-Controlled* . . . Advanced Custom-Made Havoline Motor Oil and Marfak lubrication.

Farmers get neighborly on-time service, a square deal and top quality products from Texaco Consignees or Distributors. Consignee C. J. Field *(right)*, Mission, Texas, has just delivered a tankful of Fire Chief, the gasoline with superior *"Fire-Power"* for low-cost operation, at F. G. Goates' *(left)* farm.

Advanced Custom-Made Havoline Motor Oil wear-proofs engines of tractors, trucks and cars for longer trouble-free life . . . keeps them cleaner, freer from carbon and sludge — so they deliver maximum power. Consignee F. E. Churchill *(left)* of Middlebury, Vt., discusses Havoline with Conrad Aubé, who farms 350 acres.

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—usually because of improper balancing. This hazardous operation is entirely eliminated in the Schain test.

Probably the biggest factor of all is the personal safety and well being of the student as well as peace of mind for the instructor. Regardless of the precautions taken when performing the Babcock test there is always that fear of acid and risk of personal injury. We cannot put a price on personal safety!

Test Is Accurate

As to accuracy, the Schain test has been proven time and time again to be at least as accurate as the Babcock test. Among those confirming its accuracy are the following: Department of Agriculture, Washington, D.C.; Foster Snell Food Laboratories, New York; New Jersey Dairy Laboratories; Massachusetts Institute of Technology; Virginia Polytechnic Institute; University of Saskatchewan, Canada; and the Dairy Branch, Victoria, B.C., Canada.

In the September 15, 1955, bulletin published by the U. S. Department of Agriculture Federal Extension Service, Washington, D.C., the following statement was made regarding the Schain test. "Of those tests listed for determining the butterfat content of milk, the Schain test is probably the simplest to carry out at home. It employs a non-corrosive detergent reagent, and does not require a centrifuge or other complicated or expensive equipment."

Can Use Test at Home

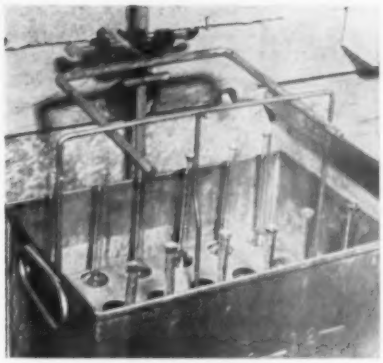
It would seem from the above statement that our milk testing program may now well follow the primary objective of vocational agriculture, namely, putting into practical use on the farm the skills and knowledge learned in the classroom.

One of the most important factors contributing to the success of any milk testing program is the proper selection and convenient arrangement of equipment.

Water Heater

When using the Schain test a good source of heat is absolutely essential. After finding a 110 volt hot plate and a single jet gas burner inadequate, two gas jets were spaced in an improvised frame in such a way as to provide adequate heat for the entire length of the oblong container and bring water to a boil in a minimum amount of time.

The burner was placed on a metal shelf on the left side of the testing cabinet in such a way that when the container is on the burner, it is the same height as the top of the testing



BOTTLE RACK HOLDER . . .
It is easy and safe to use.

cabinet. This arrangement makes it easier to remove the hot sample bottles from the container and permits greater safety since it reduces the possibility of accidentally knocking the container from the burner. It also makes it easier to check the water level which is very important in running the Schain test.

Adjustable Bottle Rack Holder

The adjustable bottle rack holder provides an easy, safe way of adjusting the bottle rack to the desired water level, a factor vital to an accurate test. It can be made by attaching a double right angle clamp to an ordinary support commonly used in chemistry departments. A "forked" holder made from a small diameter steel rod is then attached to the right angle clamp.

The width between the prongs should be such that they will slide between the bottles and thus make it easier to insert and remove the bottle rack and also keep the height adjustment at a minimum. A "stop" should be welded to the vertical rod at a point which makes it necessary to have a minimum of three inches of water in the container to insure even heat distribution and therefore greater accuracy.

Burette

A regular 12 charge acid burette can be easily converted to 12-20 cc. charges by placing a piece of white plastic tape down the front of the burette and spacing horizontal marks 29 mm. apart. This is easily done by marking the tape on a smooth piece of glass and then placing it on the burette.

Aspirator Bottle

An aspirator bottle placed opposite the burette on an upright support makes an ideal way to add distilled water. This method was found superior to another burette because of

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New SHAVER Hydraulic Post Driver

sets fence posts without digging . . . and is more than twice as fast as comparable methods of power digging and hand-tamping. Tractor-mounted, the unit will ram either steel or regular wood posts straight into hard-pan soil at the rate of 15 posts per man hour, by actual test. Hydraulic-driven, 215 lb. ram delivers 40 strokes per minute. Handles posts up to 8" diameter.

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greater speed and convenience. It is also considerably cheaper.

Bottle Rack Holder

This holder speeds the step of adding distilled water and also makes it considerably easier since bottles do not have to be handled individually. The holder can be made by nailing one side of a board to two legs cut from a 2 by 4 at a 45 degree angle. A board a little wider than the bottle rack will permit space for a support at the bottom and a turn lock at the top to hold the bottle rack securely while water is being added.

The bottle rinser has been especially helpful since it not only speeds the operation and does a very thorough job of cleaning the bottles, but it is attractive to the student and makes an unpleasant job fun.

The bottle rinser can be made by brazing a desired number of six-inch lengths of steel brake tubing two inches apart in an upright position along a three-eighths or one-half inch water pipe. One end of the pipe is then connected to the hot water source with a control valve placed conveniently between rinser and "hook up."

The "hook up" can be made easily by using a saddle "T" which enables one to tap a pipe anywhere by simply placing the saddle "T" in the desired position and drilling a three-eighths inch hole into the pipe and hooking it up. Rather than capping the other end of the pipe in order to force the water out the upright tubing, it was found that another valve would perform the same function when shut off and in addition would permit faster drainage of bottles when opened and the control valve shut off.

HEAT IS NECESSARY . . .
The boys made this burner.

This apparatus is then placed in a trough-like affair made from galvanized metal and fitted into a simple frame which supports the bottle holder and hinged cover. When in a locked position a small bolt type lock placed on top of the hinged cover and a small piece of strap iron welded vertically to the frame will prevent the bottle from being forced off.

It is recommended that the tops of the upright tubing be brazed shut and about a dozen one-sixteenth inch holes be drilled in the side of each in order to obtain a better rinsing action and also reduce the "horseplay."—*End*

A New, Proven

2-WAY FLY CONTROL PROGRAM!

Here is a powerful pair of fly killers that makes an ideal two-way control program as recommended by prominent extension entomologists—a highly effective residual bait for barns and other farm buildings and a *safe*, quick-kill livestock spray.

BANAFLY Diazinon* Bait effectively treats up to 16,000 square feet per pound—goes *three to four times* further than older baits. In USDA tests, this type bait scored a 97% fly kill in four hours—and ASL research has shown that this 1% Diazinon dry bait is several times more effective against fly maggots than previous baits.

BANAFLY Pyrenone Concentrate** meets entomologists' recommendations that only *water emulsion* sprays or light applications of highly concentrated sprays be used on livestock to avoid oil damage. One gallon of Banafly Concentrate makes ten gallons of low-cost space or livestock spray that is *four times* more potent than most AA Grade sprays.

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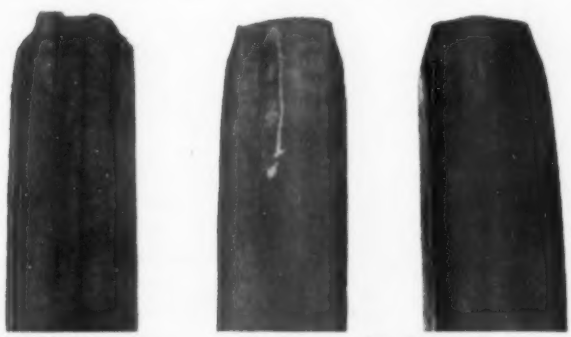
HERE IS THE PROOF...



New Guide Grip — Two Regular Front Tires

On the left is an actual photograph showing a new Firestone Guide Grip that was run in actual farm service opposite each of the two tires on the right. You can see the remaining rib height of the new Firestone Guide Grip. The other two regular front tires are worn out, one of which has even worn into the cord body. This clearly shows the remarkable wear advantage of the new Firestone Guide Grip.

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For school or home use, the . . .

Roll-Away Tool Cabinet

gives valuable tool storage

By James E. Wall
Iowa State College

● "FOR WANT OF A NAIL, a battle was lost." This age-old saying probably has special meaning for any vo-ag teacher or farmer who's made a futile search for the right tool and couldn't find it without upsetting his entire shop routine.

Not only is the hunting hard on the disposition, but the matter of tool storage has a direct bearing on the efficient us of time and savings in terms of dollars. Too often, valuable time has been spent in search of a tool that could have been found more easily, had proper arrangement and organization been considered in the layout of the workshop.

Each item in the shop should have a specific place for storing and should remain in that place when not in use. If you, as a vo-ag teacher, are to teach correct selection, use and care of equipment, orderly storage facilities will normally be the first prerequisite.

Tools Are Expensive

Good tools cost money and even those of low grade are hard to replace. At some time you may have found it difficult to justify to school administrators the expense of fitting the school shop with what is necessary to do an adequate job of farm mechanics instruction. Proper use and storage of tools is one way in which you can warrant this expenditure.

Shop safety practices and discipline are necessary if the instruction is going to result in the formulation of good habits by the students.

A hand-saw stored with the teeth resting against another metal tool is not a good habit. A tool out of place is always a hazard to good discipline and accident prevention. Some instructors follow the principle of never allowing an instrument to be placed on the floor.

Disorders in the shop, as a result of poor arrangement of tools, merely breeds discipline problems. Time wasted in search of tools causes students to lose interest in productive projects.

Consider Roll-Away Storage

Because of its many advantages, the roll-away tool storage rack can help you solve some of these problems. Its designer, V. J. Morford, Iowa State College Agricultural Engineering department, says the following are some of the advantages: (1) It's mobile and may be moved about easily; (2) it will go through a standard size door; (3) items on the tool-board are easily visible; (4) it requires no special storage room; (5) it may be used to advantage in class and shop demonstrations; and (6) the doors may be used as a chalkboard or visual aids bulletin board.

The materials used in the construction of the roll-away are relatively inexpensive. The cost will compare favorably with that of stationary or wall-type cabinets capable of storing the same number of tools.

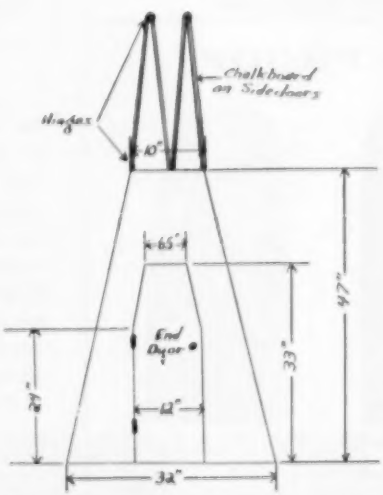
You should make the framework of lumber strong enough to carry the weight of the structure plus the weight of the tools. One-by-fours and two-by-fours are suitable for this purpose. Bracing the frame is important since it is a mobile type structure.

HANDY AND EFFICIENT . . .
The blackboard is useful, too.

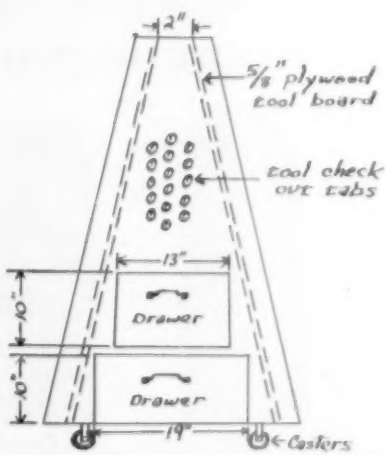
Use Good Plywood

The ends, doors, and sides, or toolboards, should be of grade AA or AB plywood. Plywood is rigid and light in weight, making it best suited for this type structure. A total of three 4 x 8 foot sheets of plywood will do the job. Two sheets should be five-eighths of an inch thick and one sheet three-eighths of an inch thick.

One five-eighths inch sheet will



The above drawing shows the overall height and thickness of the cabinet. The outside width is four feet.



Here you see the arrangement of drawers and numbered check-out tabs used by students in checking out tools. Dotted lines indicate the distance the tool boards are set in from the edges.

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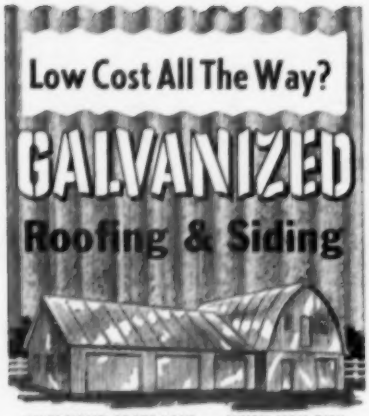

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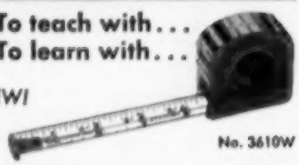
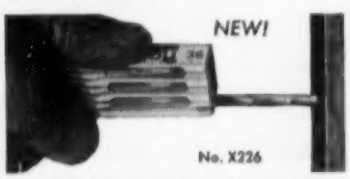


No. 3610W

¾" wide, full 10 ft. long, this "Pull-Push" Rule is designed for easy to read measuring. Tru-zero hook, tru-reading mouth and double scale markings for accuracy. Replaceable blade.



No. X226

This 6 ft., "Zig-Zag" extension rule has 8" brass slide in first stick. Pencil gauging even inches, 2", 4", 6", 8", etc., is done easily with the square ends. Select maple, extra thick sticks with big, black, easy to read numbers. Plastic coating for long life and ball-lock joints for assured accuracy.

Write Educational Department, Stanley Tools, 185 Elm Street, New Britain, Conn., for Tool Catalog No. 34.

STANLEY

"Well, well, five o'clock. Don't disturb anything and I'll be back in the morning to finish up."

make the two tool-boards and should be cut forty-six and three-fourths inches long to allow for the five-eighths inch thick ends. The other five-eighths inch sheet will make the two ends plus the center piece, which divides the inside of the roll-away into drawer and closet space for storing items not used as frequently as others.

Chalkboard Is Included

The three-eighths inch sheet should be cut into four parts, each of which is two feet wide and four feet long. Two of these, hinged lengthwise, will make one of the side doors. The side doors are hinged at the top of the roll-away. When the doors are opened to the upright position, the inside of the top section can be used as a chalkboard if painted with green or black slating.

How many times have you needed a chalkboard during a demonstration in the shop? Charts showing the sequence of steps to be followed in the construction of shop projects may be posted on the outside of the doors.

Three butt hinges, two inches wide, should be used to join the top and bottom sections of the side doors. Fasten side doors with three two and one-half inch butt hinges.

Use Nails or Screws

The structure may be put together with nails or screws. However, screws will strengthen it considerably.

One end of the roll-away should be mounted on wheels and the other end fitted with casters. This makes it easier to guide in moving. Casters and wheels should be strong enough to withtstand the rough treatment of rolling across small obstacles like nails and joints in concrete floors. The wheels should be between three and five inches in diameter and have rubber tires.

Square type screw hooks and 3-in-1 holders can be used to arrange items on the tool-board. Where 3-in-1 holders are used, small screw hooks should be provided for hanging checkout tabs.

Adopt Check-Out System

Most any system of checking out tools may be used. You may assign each student a number at the beginning of the term and provide small tabs with corresponding numbers at one end of the roll-away. When a student takes a tool he can leave his numbered tab on the screw hook and remove it when he returns the instrument. At the end of the lab period you can easily check the tool-board for missing items.

In painting the roll-away, you should consider the color scheme of the workshop. It is suggested that the outside of the rack be painted the same color as the main parts of the power machinery in the shop. A contrasting color should be used for painting tool outlines on the board.

Cabinet Has Other Uses

The roll-away is versatile and you may adapt it to tools used in most any area of farm shopwork. Instruments used in welding, forging, cold metal work, rural electrification, etc., may be stored on a rack of this type. The cabinet shown in the picture has been arranged with tools used in farm carpentry.

Recognizing that space in the shop is always at a premium, it is believed that this type cabinet can be used to advantage by those who are in need of storage facilities.—*End*

No. 1 in a series:

What about PIVAL® Acceptability?

Tests with other anticoagulants show PIVAL has substantially greater acceptability, offering more effective control.

Recommend

RAT and MOUSE KILLERS CONTAINING PIVAL®

appearing under top brands everywhere.

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TERMINAL AVENUE • CLARK, N. J.

Helpful BOOKLETS

AG CHEMICALS

180—Versatile Cyanamid

It is amazing the number of excellent agricultural chemical products that have been developed from cyanide by the American Cyanamid Company. The following booklets explain some of these products and how they can be used effectively in agriculture. Copies await your asking.

A—Better Fruit with Aero Cyanamid
B—Lawn and Garden Cyanamid
C—Aero Cyanate Weedkiller
D—Aero Cyanamid—What It Is and How to Use It

On the postal card
CIRCLE 180A, 180B, 180C, 180D

181—Weed Control in Ponds

Here is an excellent booklet from the Chipman Chemical Company giving full information on how to control weeds in ponds and lakes. Many farmers with farm ponds will soon be interested in cleaning them up and keeping them free from such growth. Let this booklet answer some of their questions.

On the postal card
CIRCLE 181

182—The Niagara Catalog

A general catalog is available from the Niagara Chemical Division giving a complete run-down on their products and uses. You may wish to have this as a reference and source of many excellent agricultural chemicals for the use of your farmers.

On the postal card
CIRCLE 182

183—Safeguards for Milk

You may have received these booklets before, but may wish to restock your reference file. Here are several available from Columbia-Southern Chemical Corporation on a product useful in the dairy industry for sanitation purposes.

A—Protective Sanitation with Pitticide
B—Safeguard Milk Production with Pitticide

On the postal card
CIRCLE 183A, 183B

ANIMAL HEALTH

184—Veterinary Products

The Colorado Serum Company has a listing of veterinary biologicals that they will send to you should you wish a copy. Here you will find listed their various products in the animal health field and how each can be used to good advantage by farm people.

On the postal card
CIRCLE 184

185—Chick Coccidiosis

This is a disease that has plagued poultrymen for years. That's why a booklet entitled "Coccidiosis of Growing Chicks" will be of help to you, made available by the Moorman Manufacturing Company. Be sure to send for it today and answer authoritatively the questions your farm people will be asking concerning this poultry ailment.

On the postal card
CIRCLE 185

186—Control the Parasites

Worms have always been a problem in livestock and poultry farming. A booklet entitled "Worm Control Handbook" is available from Dr. Salsbury's Laboratories and will make a valuable addition to your reference library. In it you may find many helpful suggestions and hints to better help farmers adopt good practices in parasitic control.

On the postal card
CIRCLE 186

BREED ASSOCIATIONS

187—Black Cow Booklets

A "black cow" can mean root beer and ice cream or it may refer to the popular Aberdeen-Angus breed of beef cattle. To better acquaint you and help students and adult farmers understand this breed of cattle, the American Aberdeen-Angus Breeders Association has these booklets they would like to send to you.

A—Cattle Raising at Its Best
B—Blacks Breed Better Beef
C—Colored Pictures for Framing

On the postal card
CIRCLE 187A, 187B, 187C

188—Learn About Berkshires

A booklet on "Berkshire Hogs" is available from the American Berkshire Association. Here you will find many timely discussions concerning this breed of hogs and how it fits into the general agricultural farming picture. It will be a valuable book to keep as a teaching aid.

On the postal card
CIRCLE 188

189—The Popular Whiteface

Herefords are popular throughout the country, and many young 4-H and FFA boys raise them as a project. Therefore, these two booklets may be of help to you and prove a valuable addition to your reference library. Certainly both young and adult farmers will find material of interest in them.

A—Plan and Profit with Herefords
B—Equipment for Hereford Producers

On the postal card
CIRCLE 189A, 189B

All Booklets Listed in this section are

FREE!

These booklets are available from these individual companies and will be of help to you in your work of training and advising farm people.

190—The Good Red Hog

Durocs are quite a popular breed of hogs and raised in all sections of the country. Booklets from the United Duroc Record Association may be a valuable teaching aid, of interest to adult farmers, and material you will want for your files. Send for your free copies today.

A—Profits Plus
B—Four Reasons
C—The Farmer's Favorite

On the postal card
CIRCLE 190A, 190B, 190C

Be sure to give your complete name and address on the postal card.

FARM BUILDINGS

191—Building Kit

The Kaiser Aluminum and Chemical Corporation has a kit specifically prepared for agricultural leaders on the use of aluminum in farm buildings. Here, in addition to a discussion of this product, you will find many helpful building hints, plans, and other material that you can use to good advantage in your work. Send for your copy today.

On the postal card
CIRCLE 191

192—Farm Plan Catalog

Here is a very informative folder that gives a brief description and lists the various farm building plans available from Reynolds Metals Company. From this your farmers can easily pick those they are specifically interested in, and then complete plans can be obtained. Certainly you will want this handy folder on hand at all times as a help to farm people.

On the postal card
CIRCLE 192

DAIRY

193—Helpful Dairy Booklets

Babson Bros. Company has a number of booklets available to agricultural leaders, each in the field of dairy husbandry. You will find them interesting, informative, and of help to you in answering questions asked by farmers concerning such dairy equipment and its use.

A—Want to Do Something About Mastitis?
B—Rules for Money Making Milking
C—If You are Thinking About a Pipeline Milker
D—Machine Milking Efficiency
E—What About Your Vacuum Pump

On the postal card
CIRCLE 193A, 193B, 193C, 193D, 193E

FARM EQUIPMENT

194—The Blade and Digger

The Danuser Machine Company makes farm equipment for post-hole digging and land scraping. Therefore, these two booklets will find their way into your useful folder on such types of equipment. Learn more about it by sending for your booklets today.

A—Danuser Post-Hole Digger
B—Danuser Blade

On the postal card
CIRCLE 194A, 194B

Please!

Sign your name—give your address—on the postal card.

Use a card from the latest issue of Better Farming Methods—not an old one.

195—Conservation Booklets

Deere and Company has long been interested in soil conservation and they have supplied many booklets for agricultural leader use. Here are three in the field of conservation that you will find very helpful and informative. There will be many times when they will be of specific use and help to you.

A—Hungry Soil
B—Soil Conservation
C—How to Terrace

On the postal card
CIRCLE 195A, 195B, 195C

196—Plows for Fords

Here is a descriptive folder on the various types of plows available for use on the Ford tractor line. If you have interested people in this line of equipment, avail yourself of a copy of this booklet, "Plows for Ford Tractors."

On the postal card
CIRCLE 196

197—Fertilizer Machinery

A number of valuable farm machines are made by the E. S. Gandrud Company. Here are several booklets giving information on their specific line of machinery useful in fertilizer application. See how these can fit into a well-rounded farming program.

A—Dry Chemical Applicator
B—Hi or Lo Spreaderette
C—Multiple Hopper Fertilizer Spreaders

On the postal card
CIRCLE 197A, 197B, 197C

198—M-H Equipment

Massey-Harris Company lists a number of booklets explaining their line of agricultural machinery. Here are five booklets that may contain information of help and value to you.

A—Hay Tools
B—Hay Baler
C—Good Forage
D—Cultivating Equipment
E—Buyer's Guide

On the postal card
CIRCLE 198A, 198B, 198C, 198D, 198E

199—Machinery Booklets

These booklets are more than just sales information about the Minneapolis-Moline Line of machinery. Much agricultural history will be found in them, in addition to helpful information about machinery products. See if you don't agree and find the booklets of specific interest.

A—Pioneers of Progress
B—Highlights in History
C—Land of Plenty
D—Fuel Wise

On the postal card
CIRCLE 199A, 199B, 199C, 199D

☆ NEW

Never the same—

200—Grain Sanitation

The Douglas Chemical Company has a booklet entitled "Meeting the Challenge of America's New Grain Sanitation Standards" that will be of interest to farmers, grain men, and agricultural leaders. The eight-page booklet deals with grain sanitation and is written in easy-to-understand language.

On the postal card
CIRCLE 200

201—A New Fabric

Here is a "test tube" fabric that may replace some canvas uses on the farm. It is a combination of nylon and special plastic, and tests have shown that it will give amazing results under the most grueling conditions. A pamphlet entitled "Here is More Information About Herculite" is available to ag leaders.

On the postal card
CIRCLE 201

202—Root-Proof Orangeburg

Here is a very colorful pamphlet of notebook size on the root-proof, perforated Orangeburg pipe and fittings. The pipe is exceptionally useful for farm drainage, septic tank disposal, foundation footings, and other underground uses. Read about the sizes, uses, and advantages of this material, a product of Orangeburg Manufacturing Company.

On the postal card
CIRCLE 202

203—Automatic Oiler

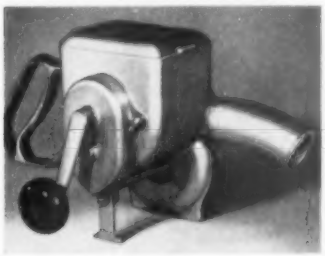
The Farnam Company has produced a rope-wick oiler, priced low, with field tests showing that it does the job. A specially treated marine rope, three inches in diameter, is used, providing a perfect rubbing and scratching surface. Circle the appropriate number for more information concerning this piece of equipment.

On the postal card
CIRCLE 203

Booklets and Products ☆

Watch for the change—Every month!

204—New Garden Duster



D. B. Smith & Company announces a new, light-weight, highly engineered garden duster that will give a smooth blast of eight or nine feet. It is also useful for sewing grass seed and is made from aluminum. It weighs one and one-quarter pounds, with a good capacity. Circle the appropriate number for more information on this handy garden accessory.

On the postal card
CIRCLE 204

205—Big Cow Booklet

Here is a booklet from the Holstein-Friesian Association entitled "Big Cow . . . Big Profit." In it agricultural leaders will find much valuable information about the Holstein breed of dairy cows, and the booklet will be of great value as a reference. Send for your free copy today.

On the postal card
CIRCLE 205

206—Feed the Soil

This is really an educational booklet, one that ag leaders like to get for it contains much valuable information with a minimum amount of product information. It was made specifically for ag leaders and farmers by Spred-All, Inc., yet 90 percent of it is devoted to educational material on fertilization. You will want a copy of this excellent booklet by return mail.

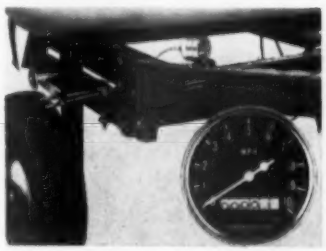
On the postal card
CIRCLE 206

207—Barn Equipment

A colorful notebook size catalog giving various pieces of equipment for dairy farms is available from the Badger Northland Company. Here you will find barn cleaners, silo unloaders, and other equipment useful to, and used on many farms. Be sure to have a copy of this catalog for your files.

On the postal card
CIRCLE 207

208—Farm Speedometer



You may not think a speedometer is necessary for farm field use, but it is an excellent accessory to use in spraying, seeding, and harvesting. It will coordinate over-the-ground speed, for instance, of farm equipment with the flow of anhydrous ammonia to secure a uniform distribution. Stewart-Warner Corporation has information available to you on this piece of equipment and its profitable use on farms. Send for it now.

On the postal card
CIRCLE 208

209—Hull Your Oats

A four-page brochure describing the advantages of the Gold Nugget Oat Huller from Knoedler Manufacturers. One of the few farm-size oat hullers and grain crackers available today — nutritional advantages of "groats" described, plus testimonials from owners.

On the postal card
CIRCLE 209

211—Lightweight Pipe

Here is a plastic pipe from Carlon Products Corporation that is light, easy to install, and will find good use on the farm in sewer and drain applications. More information is available to ag leaders by merely circling the appropriate number.

On the postal card
CIRCLE 211

210—Haystack Mover

The Farmhand Company recently developed a new machine, the Stack Mover, that mechanizes the handling of hay. A booklet on this machine tells how it can be used by farmers, where it fits into the average farming operation, and will be of interest and help to all ag leaders. Your copy awaits you.

On the postal card
CIRCLE 210

FEEDS

212—Chick Pointers

Two booklets from Allied Mills, Inc., give information on poultry management, how to successfully realize more profits from the farm flock. Students will be interested in the facts in these booklets as well as adult farmers. Send for your copies today.

A—How You Can Get More and Better Eggs
B—How to Make More Money With Better Bred, Better Fed Chicks

On the postal card
CIRCLE 212A, 212B

213—Dehydrated Alfalfa

This is becoming a popular feed, used in commercial feeds and on the farm, too. Booklets from the American Dehydrators Association give the feeding benefits of this type alfalfa and how it can be used successfully by farmers. A copy awaits your asking.

A—How to Feed Dehydrated Alfalfa
B—Improve Beef Supplements with Dehydrated Alfalfa
C—Increase Profits From Sheep

On the postal card
CIRCLE 213A, 213B, 213C

214—Salt is Important

While farmers know the value of salt, many of them do not understand how much it is needed and can affect growth and profits from livestock. Three booklets available from International Salt Company are yours for the asking and can help answer questions by farmers in this feeding area.

A—Cows Need More Salt
B—Keep Salt Before Your Livestock
C—Sterling Salt and Trace Minerals

On the postal card
CIRCLE 214A, 214B, 214C

215—Yeast and Vitamin D

Standard Brands, Inc., has prepared two booklets for ag leader use on the value and use of dry yeast and Vitamin D. Certainly you will find a need for these booklets and they can be of help to you in many instances. Be sure to circle the appropriate numbers for your copy on the card you are returning today.

A—Sun-Cured Roughages Vary Widely in Vitamin D Value
B—Feeding Irradiated Dry Yeast for Milk Fever Prevention

On the postal card
CIRCLE 215A, 215B

FERTILIZER

216—Don't Starve Plants!

Seldom do you think of starving plants, but many farmers are doing just that. And it's hard for them to see the value of fertilizer. That's why these booklets from the American Potash Institute will be widely accepted by ag leaders in getting across this important field of practice to farmers.

A—Plant Food Utilization
B—How Different Plant Nutrients Influence Plant Growth
C—Starved Plants Show Their Hunger
D—Principles Involved in Soil Testing
E—Potash Deficiency Symptoms

On the postal card
CIRCLE 216A, 216B, 216C, 216D, 216E

217—A Tale About Moly

Much has been said and written in recent years concerning Molybdenum and its place in agriculture. Climax Molybdenum Company has booklets available to ag leaders that will help you understand the role of this minor element in soil nutrition. Be sure copies are in your reference files for use when farmers ask questions concerning Moly.

A—Testing for Molybdenum Deficiency
B—Molybdenum and Lime in the Treatment of Acid Soils
C—The Role of Molybdenum in Soils and Plants

On the postal card
CIRCLE 217A, 217B, 217C

218—The Value of Rare Elements

Most farmers do not understand the value and assimilation of rare elements by plants. Therefore, many soils may be deficient in these elements and it is of help for farmers to know more about them. These booklets from Tennessee Corporation are designed to tell this story and be of value to you.

A—Manganese Products Pamphlet
B—Zinc Sulphate Pamphlet
C—The Role of Rare Chemical Elements as Nutrients to Plants, Animals, and Man

On the postal card
CIRCLE 218A, 218B, 218C

IRRIGATION

219—Portable Irrigation

Many farmers like an irrigation system that is easy to move. This is particularly true in regions where ditch irrigation is not practiced. So, these booklets from the W. R. Ames Company will help answer questions concerning their line of portable irrigation equipment, in addition to good sprinkler irrigation practices.

A—ABC Sprinkler Systems
B—Lo-Hi Gated Pipe Systems
C—Wheel-O-Rain Sprinkler Systems

On the postal card
CIRCLE 219A, 219B, 219C

220—Friction Causes Loss

Yes, indeed, especially in irrigation pipe. That's why this booklet entitled "Friction Loss in Irrigation Pipe," will give you some technical and helpful facts concerning this problem and how to make allowances for it. The booklet is published for ag leaders by the Hale Fire Pump Company.

On the postal card
CIRCLE 220

221—Plastic Use in Irrigation

Flexible plastic pipe has a place in irrigation. The Yardley Plastics Company has several booklets they would like to send to you telling about this use. Here you will find explained how much plastic pipe fits into farm irrigation systems.

A—Pressurated Pipe
B—Installation Instructions for Flexible Plastic Pipe
C—Twin-Du-It Pressurated Pipe

On the postal card
CIRCLE 221A, 221B, 221C

POULTRY

222—Poultry Booklets

From the DeKalb Agricultural Association are two booklets on poultry raising that will be of interest to you. They deal with the famous DeKalb Chix, the popular inbred line of chickens that many farmers are acquainted with. Send for these booklets for your reference files today.

A—Acres of Chix
B—Making More Money with DeKalb Chix

On the postal card
CIRCLE 222A, 222B

223—Hy-Line Catalog

The Hy-Line Poultry Farm would like to send to each agricultural leader requesting it, a catalog of their line of chicks. Here you will find the many strains they have developed, the outstanding characteristics of each, and where such chickens can be obtained by your farm people. Send for your Hy-Line Catalog today.

On the postal card
CIRCLE 223

224—Barbequed Poultry is Good

Yes it is, and that's why you will want a booklet from the Nichols Poultry Farm on various methods of barbequing chicken. It will soon be summer-time, and your guests will enjoy this different way of preparing chicken. Be sure to include a request for a copy of this booklet on the card you are returning today.

On the postal card
CIRCLE 224

225—Management Pointers

Whitmoyer Laboratories, Inc., have several booklets available to ag leaders on poultry management and health problems. These will bring much information and can prove of value to you.

A—Bulletin on Management
B—Lab-Fax, Poultry Health Control

On the postal card
CIRCLE 225A, 225B

SPRAYERS

226—Sprayers for Farmers

Soon it will be time for many spraying jobs about the farm. Sprayers are very versatile pieces of equipment and can be used for weed control, building sanitation, and for many other jobs. Here are booklets from Century Engineering Corporation that you will find of help and interest.

A—How to Select the Right Sprayer
B—How to Get Better Grass and Small Grain Stands
C—All-Purpose Boom Type Sprayers
D—Tractor Powered Hand Gun Sprayers

On the postal card
CIRCLE 226A, 226B, 226C, 226D

227—The Brodjet Manual

Hanson Chemical Equipment Company would like to send you their booklet, "Hanson Brodjet Operator's Manual," that gives full instructions for using this type of spraying equipment. Be sure to request your copy today.

On the postal card
CIRCLE 227

TEACHING AIDS

228—All About Railroads

Four booklets are available from the Association of American Railroads explaining the role of this mode of transportation in the economy of our country today. Railroading still has a great interest for every young and adult person, and here you will find valuable and helpful information.

A—Inside Railroading
B—Railroads Deliver the Goods
C—The Railroad Story
D—Railroad Film Directory

On the postal card
CIRCLE 228A, 228B, 228C, 228D

229—Smooth Out the Land

Many farmers are smoothing off the high points of their farm to give a better drainage system and permit efficient irrigation. Eversman Manufacturing Company has a booklet on their Model 410 Leveler that will be of interest to you.

On the postal card
CIRCLE 229

231—Cuprinol Preserves Wood

"Triple-acting Cuprinol Makes Wood Look Better, Perform Better, Last Longer" is the title of a booklet available to ag leaders from Darworth, Inc. See how treatment of wood with this product can increase its use, effectiveness, and lengthen its life.

On the postal card
CIRCLE 231

IDEAS that WORK

Soil Saver Display

Here is an excellent idea for a simple, eye-catching exhibit.

It is most effective when actual containers with soil are used with a chart background. On the chart are pictures of contour rows and straight rows in the field. Then, behind each of the soil displays is the note of grade per hundred feet, as shown in the illustration.

Simple boxes placed at an angle to better show straight and contour rows illustrate these points very effectively.

This exhibit has been used extensively in our state by a good many agricultural leaders.—*J. Frank Doggett, extension soil conservationist, Raleigh, N. C.*

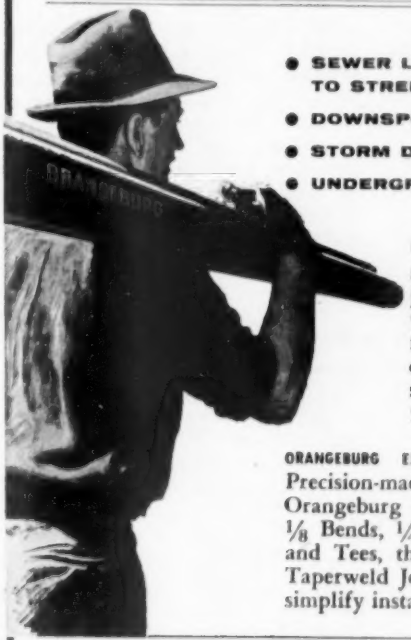
Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

Wayne Hinderliter, a 15-year-old Vocational Agricultural student in the Grayville Community High School in Edwards county, Illinois shows C. E. Cox, his vo-ag instructor, the excellent quality of grain from a field that made 169.83 bushels per acre and won first place in the 1955 National Selected 2-acre Junior DeKalb Corn Growing Contest. Wayne also has poultry and sheep projects and received FFA recognition for high production of livestock and crop projects.

For Modern Sewer and Drain Lines!

ORANGEBURG®

ROOT-PROOF PIPE AND FITTINGS



- SEWER LINES FROM HOUSE TO STREET MAIN OR SEPTIC TANK
- DOWNSPOUT RUN-OFFS
- STORM DRAINS
- UNDERGROUND NON-PRESSURE LINES

Orangeburg's light 8-foot lengths mean light work — with fewer joints to make . . . famous Taperweld Joints seal root-proof with a few hammer taps—no cement, no compounds. Orangeburg is tough, strong, resilient. Lines in service 50 years operate like new.

ORANGEBURG EXCLUSIVE FITTINGS
Precision-made of famous Orangeburg materials . . . 1/8 Bends, 1/4 Bends, Wyes and Tees, they feature the Taperweld Joint, speed and simplify installation.

ORANGEBURG PIPE ALSO COMES *PERFORATED!*

Scientifically spaced perforations . . . Snap Couplings slotted at bottom . . . assure uniform seepage for entire pipeline. Use Orangeburg *Perforated* Pipe for septic tank filter fields, foundation drains—draining wet spots in barnyards, lawns, fields.

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Please send me Catalog 307 and "Installation Tips."

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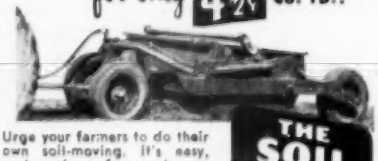

THE SOIL MOVER

Urge your farmers to do their own soil-moving. It's easy, costs only a few cents per cu. yd. Improved SOIL MOVER, world's No. 1 scraper, soon pays for itself leveling fields, filling gullies, building terraces—dams, maintaining ditches, etc. Wheeled, hydraulically operated, built for lifetime use. Front pick-up, rear dump. Leveling rear-gate spreads or dumps. 7 models—1 to 3½ cu. yds.

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THE SOIL MOVER COMPANY

Dept. BF-5 Columbus, Nebr.

Largest Mfgr. of Agr. Soil Moving Equipment

You can't Miss with a

WHITE

everything you could ask for in a

FARM LEVEL

Designed for the modern farmer who wants an accurate easy to use level for all around work at a sensible price.

The White model 8017 is a 10 power scope and comes complete with case, hinged leg tripod, plumb bob and 5-section rod with a metal target, ready for the job for only $46.50.* Write Dept. 156 for full details and name of nearest dealer.

$46.50*

**Prices subject to change without notice.*

DAVID WHITE COMPANY

365 W. Court Street, Milwaukee 12, Wisconsin

For the benefit of workers, a summary of . . .

Ag Leader Salaries

● SALARY DOLLARS STILL are an important item in the life of agricultural leaders.

Generally speaking, however, leaders are probably less concerned with dollars than a great many groups of Americans. *Much of their payment for jobs well done comes in the area of personal satisfaction and friendships, gained only by those who work with and for other people.*

Since Better Farming Methods published its first summary of ag leader salaries, many letters have been received from the field stating how the summary was used to good advantage by states to help adjust their salary problems. Individuals, too, have written commenting on the value and help of such a summary to workers in the profession.

The summaries have been published particularly for the individual agricultural leader working at the county or community level. It is true that his superiors have in most cases the complete salary structure for his particular state and possibly the nation. Yet individual workers do not have the opportunity to see their professional salary structure on a nation-wide basis.

By Herbert L. Schaller
Editor

County Extension Worker Salaries
(32 States Reporting)

State	1955–56 County Agents			1955–56 Assistant County Agents			1955–56 County 4–H Club Agents		
	High	Low	Aver.	High	Low	Aver.	High	Low	Aver.
Arkansas	$6900	$4400	$5278	$4200	$3600	$3800			
Arizona	7750	5200	6000	5500	4500	4940			
*California	10596	6360	8768	10092	4404	6252			
Florida	9612	3540	5407	7816	3600	4396			
Georgia	9096	4016	5175	5650	3808	4438			
Indiana			6208			4752			
Iowa	7500	4900	5900	6200	4500	5150	$5300	$3800	$4340
Louisiana	8000	5500	6851	7000	3900	4945			
Massachusetts	6660	4140					5220	3720	
Michigan	8500	5200	6429	8300	5100	5939	6500	4000	5286
Minnesota	7000	4320	5494	5200	4200	4610	4800	3500	4137
Mississippi	7230	4100	5093	5690	3600	4172			
Missouri	6800	3800	5305	5700	3600	4432			
Montana	6550	4200	5188	5000	3900	4441			
Nebraska	7300	4300	5398	5900	3400	4180			
Nevada	6300	5100	5645	5000	4200	4700			
New Jersey	9870	6270	9030	8910	4620	6168	8910	3960	5917
New Mexico	6420	4620	5450	4920	3720	4240			
New York	9020	5000	6160	5500	3600	4489	8263	4500	5873
North Carolina	8230	5049	6456	6861	3744	4742			
North Dakota	6404	4608	5306	4854	4404	4522			
Ohio	7836	5436	6374	5844	4236	5044	5844	5844	5844
Oregon	7140	5388	6462	6408	4260	5373	6000	4548	5194
Pennsylvania	7260	5040	6092	6420	4008	4434			
South Dakota	5800	4700	5180	4700	4200	4280			
Texas	8970	4040	5387	5300	3483	4119			
Vermont	6400	4500	5264	4600	4000	4317	5500	3300	4346
**Virginia	6310	3936	5530	5560	3600	4150			
Washington	8200	4500	6264	6150	3800	5033			
West Virginia	6100	3800	4869	5000	3300	4175	5050	3300	3976
Wisconsin	8340	4924	5936	6900	3865	4850	5920	3800	4751
Wyoming	6720	5088	5791	5328	4104	4653			

*The three figures listed under 'County Agents' refer to county directors in California, and those listed under 'Assistant County Agents' refer to farm advisers.
**This includes both white and negro.

Salaries Are Rising

Generally speaking, salaries of agricultural workers have been going up.

In 1952 in the vo-ag field, the high salary reported was $7200. This compares with a high in 1956 of $8760.

The low salary in 1952 was $2400, compared with the low in 1956 of $3036.

Average is Up

The state with the lowest average salary in 1952 reported $3000. Today that figure has risen to $3570.

Too late to be included in the vo-ag salary table was the report from Maryland. Their figures including both white and negro in a single salary schedule, are high, $7140; low, $3360; and average, $4800.

County Agents Up, Too

Looking at county agent salaries, here is the record. The high reported in 1952 was $8900 compared with $10,092 in 1956.

The low was $3012 in 1952, and today it has risen to $3540. The lowest reported average salary in 1952 was $4200 and today it is $4869.

Negro County Agent Salaries

State	1955–56 County Agents			1955–56 Assistant County Agents		
	High	Low	Aver.	High	Low	Aver.
Arkansas				$3700	$3200	$3411
Florida	$3860	$2920	$3311			
Georgia	5420	3118	3574	2603	2438	2521
Louisiana	5300	3600	4339			
Mississippi	4420	2530	3342	3035	2675	2726
North Carolina	5559	4020	4832	4200	3480	3977
Texas	5049	3000	3735			

Here are a few precautions that individuals should take in evaluating and using such a salary summary.

1. Consider factors that affect salaries.

There are many factors that may increase or decrease salaries between states. In some states, living costs are lower than in others.

Location, local and state taxes, nonspecified travel allowances, retirement, and other factors may contribute to a difference in salary as published, but greatly decrease the difference when taken into individual consideration.

No agricultural leader should consider the grass greener in one state than the other just on the basis of a stated salary figure without consideration of all factors that might affect it.

2. Analyze your work within your state.

Each agricultural leader has an opportunity to evaluate his own position within his state in comparing his salary with his state as a whole. This may not always mean that a given locality is better or worse than any other.

A true and searching analysis may reveal that some agricultural leaders are not doing an above average job to warrant a top salary in their state.

3. Do not compare salaries between groups.

Naturally, readers will be interested to see what other groups within this field receive. But again, such a comparison without regard to the many factors affecting salaries within state and local communities make it of little value.

Area Salaries Available

Since, in many cases, salaries of ag leaders in an area or community are public information, leaders already have this comparison at the only level of specific interest where factors are essentially the same.

Vo-Ag Teacher Salaries
(43 States Reporting)

State	1955–56 Vo-Ag Teachers White			1955–56 Vo-Ag Teachers Negro		
	High	Low	Aver.	High	Low	Aver.
Alabama	$5120	$3973	$4620	$5120	$3973	$4620
Arkansas	4625	3200	3570			
Arizona	7555	4570	5501			
California	8760	3900	5722			
Colorado	6450	3600	4564			
Connecticut	6400	3960	5338			
Delaware	7440	3880	5154	5880	5880	5880
Florida	6560	3348	4635	5810	2950	4330
*Georgia	6364	3550	4843			
Idaho	5445	4000	4662			
Illinois	8300	3300	4865			
Indiana	6960	3900	5121			
Iowa	6125	4400	5067			
Kansas	6100	3600	4687			
Kentucky	5666	3144	4066	5366	2800	3576
*Louisiana	6741	3100	5003			
Maine	5500	3400	4003			
Massachusetts	6336	3200	4665			
Michigan	7165	4400	5424			
Minnesota	6959	4400	5417			
Mississippi	4650	3600	3900	4000	3240	3600
Missouri	6160	3300	4198	4045	3200	3667
Montana	6875	4200	5110			
Nebraska	6400	4050	4607			
Nevada	5960	4500	4900			
New Mexico	7071	4200	5343			
New Hampshire	5320	3500	4425			
New Jersey	6960	3800	4960			
New York	7800	3200	4974			
North Carolina	5280	3372	4560	5280	3372	4560
North Dakota	6133	4500	4904			
Ohio	6336	3650	4718			
Oregon	6980	4400	5283			
Pennsylvania	6890	3600	4600			
Rhode Island	5739	4000	4856			
South Carolina	4290	3036	3663	4290	3036	3663
South Dakota	5500	4000	4352			
Texas	5912	3740	4200	5912	3740	4200
Utah	5928	3750	4822			
Vermont	5250	3500	4014			
Washington	6990	4020	5454			
Wisconsin	7152	3700	4852			
West Virginia	6080	3234	4386	4601	4236	4460
Wyoming	6300	3900	4678			

*This includes both white and negro.

The salary summary is presented as a service to agricultural leaders. We believe it is of help and value. We believe that the majority of ag leaders, men of mature judgment and intelligence, not only appreciate receiving this information, but endeavor to use it in a manner that will benefit both the individual leader and his profession.—*End*

Farmers Home Administration Salaries

	1955–56 White			1955–56 Negro		
	High	Low	Aver.	High	Low	Aver.
Salaries Uniform Throughout Country	$6260	$3670	$4984	$5335	$3670	$4502

Work Unit Conservationist Salaries

	1955–56		
	High	Low	Aver.
Salaries Uniform Throughout Country	$6655	$4525	$5360

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38

Better Farming Methods Salutes

Leon F. Lee

Vo-Ag Teacher
Newark, N. Y.

38 years of service

● "WATCHING BOYS GROW and develop, take on added responsibilities, and develop into good farmers and citizens, has been the greatest impelling force behind my 38 years of teaching vocational agriculture," said Leon F. Lee, the oldest vocational agriculture teacher in terms of service, now teaching in New York State.

Lee has taught more than 1,200 boys and young men in vocational agriculture classes, young farmer programs, adult agriculture classes, and special war and veteran training groups. At least 150 of his all day vocational agriculture graduates are now full-time farm operators. Ten of his boys have completed college courses.

Leon F. Lee, left, now in his 39th year of teaching vocational agriculture, makes certain John Witt, a junior in vocational agriculture at Newark Central School, had the drill properly adjusted.

He takes greatest single pride in watching the progress of a boy who achieved the distinction of being named Wayne County Farmer in 1953. A full time farm operator and owner, this young man grew up on a poultry farm, and by progressive steps advanced from hired man, tenant farmer, to his present station.

Lee has kept abreast of changing agricultural conditions through graduate studies at Cornell University. He has organized his present vocational agriculture program on an experimental released time program.

This is characterized by placement of the pupils under his supervision out on cooperating farms. Here they receive instruction from the farmer during regular class sessions, three afternoons each week.

He has authored articles which have appeared in four farm magazines and is the farm editor of his local town weekly which runs a regular column entitled "Agricultural-LEE Speaking." He was awarded seventh place for pictures and an article on farm welding construction completed in his farm shop program in 1947 and the article and pictures appear in "Welding Helps for Farmers," a text book on welding published by the James F. Lincoln Arc Welding Foundation.

He served the New York Association of Teachers of Agriculture successively as secretary-treasurer, vice-president, and president. Other professional leadership includes president of the Newark Teachers Association and secretary of the County Schoolmaster's Association.

Lee and his wife live at Newark, N.Y., where they reared their four children, during the 31 years he has taught there.—*Ernest F. Nohle*

Granular DDT vs. Corn Borer

DDT granules may give a more effective answer to corn borer control according to Iowa State College.

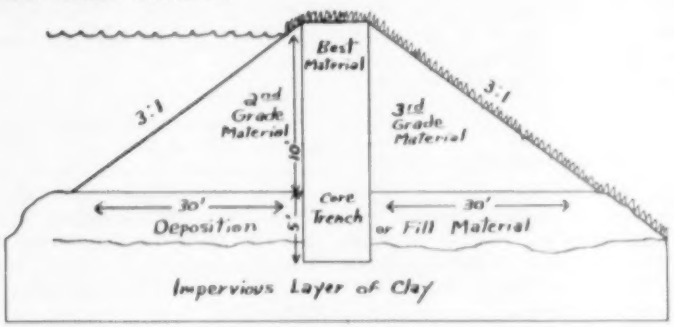
Granules have several advantages: 1. They can be applied in dry form; 2. There is no water to haul or insecticide to measure and mix; 3. A given load of granules will cover nearly four times the acreage treated by a similar weight of spray; 4. Equipment used to apply granules is easier to operate, adjust, clean, and maintain.

Treatment is not quite as critical as with sprays. The granules fall deep into leaf whorls and consequently remain near the point of young borer's feeding. A farmer must have special application equipment or adapt a grass seeder or drill.

These are the 1956 officers of the Arizona County Agricultural Agents Association. (l-r)- John Sears, president, Graham county; Bill Brechan, vice-presinent, Coconino county; and Carmey Page, secretary-treasurer, Chochise county.

IDEAS that WORK

Pond Cross Section



This past fall I developed a visual education chart to use as an aid in our community institute meetings. The purpose of the chart was to explain the cross section of a farm pond.

This proved quite successful for me, and was of interest to our area farmers.

The above sketch shows how you can illustrate this cross section to your farm people. Use one piece of quarter-inch masonite approximately four by two feet. After you have drawn in the various segments of the cross section, use various colors to show up the different sections. I used blue for the water, green for the grass, bright red for the trench, and other fairly bright colors for the remaining segments.

I think you will find this an interesting display and teaching aid for those people interested in farm pond construction.—*Roger King, conservation aid, Caldwell, O.*

Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

The Oliver Model 50 Twine-Tie Baler

Simple design pays off in the bale

This is a time when dollars count. Nowhere do they count more heavily than in the farmer's baling operation—where all depends on getting that perishable crop in fast. A new baler is his best insurance of haying profits. Best of all, an Oliver; then the payoff is doubly sure.

Take this Oliver Model 50 Twine-Tie Baler. See how simply it's designed? You have only to look at a bale to see where that simple design pays off.

Notice the quality. This hay was baled at just the proper stage. The instant the crop is "right," the Model 50 moves fast and keeps moving. A sturdy machine which has fewer parts to go wrong.

Notice the leaves. They're there, *in the bale*—the valuable proteins with them. That's because the Model 50 takes the hay from windrow to bale with an absolute minimum of handling. Up...across... out. Again, *simple design.*

And capacity! Simple design means that all weight is *working* weight—the Model 50 bales up to nine tons an hour. (And how effortlessly when attached to an Oliver Tractor's Independently Controlled PTO!)

Cut the twine, and see just what kind of bale this machine turns out. See how the bale opens? All in separate, even slices—just right for feeding.

Look at it any way you will, *this simpler design pays off for the farmer.*

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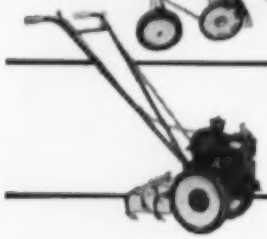

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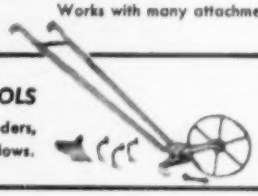

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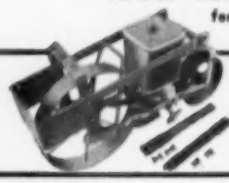

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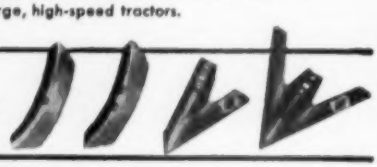

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As community service . . .

4-H'ers Operate Crop Test Plots

By Howard Dall

University of California

● DOORSTEP TEST PLOT service! That's the kind Sacramento county, California, field crop growers have learned to expect from 4-H club members of their county.

The service consists of running test plots on various field crops to discover practices best suited to Sacramento county conditions. The crops tested have included milo, castor beans, corn, and rice.

Drop in on one of the 4-H club members doing this work. He's Johnny Thornton, 15 year old youth, whose parents operate a large ranch along the Sacramento River north of the city of Sacramento.

He Tested Rye Seed

You may find him checking the seed he and his parents harvested from the 30-acre grain sorghum test plot Johnny had charge of this past summer. The test was to compare Ryer 15 and Norghum and to indicate the best seeding rate for Norghum. The Ryer 15 seeding rate had already been well established, but under Johnny's conditions optimum seeding rate for Norghum was a guess at best. Ryer 15 had proved itself in previous tests by 4-H Club members and farmer experience but Norghum had yet to be tested.

Would Norghum compare with Ryer 15 and just exactly what rate of seeding would bring about the best yields? These were the questions Johnny hoped to answer with his tests in 1955. He and his University of California farm advisor, Torrey Lyons, and his parents, decided to try two seeding rates, 12 and 24 pounds per acre.

Johnny Plans Planting

The planting of the field was delayed somewhat by the double-crop growing of barley in the same field. The milo went into the ground on July 13. Johnny helped map out the area and planned the plantings so that there would be a fair comparison of the different planting rates. He also checked on the seeding rates so they would be exact.

The surprising point about all this was the interest shown by Johnny in

Farm Adviser Torrey Lyons, and Johnny Thornton check the root system of plantings in a test plot being grown by Johnny.

the tests. Previously, Johnny had been indifferent to many of the farm's operations. His parents had not tried to force him, but felt that he should decide where his chief interests lay. However, they were pleased at his close attention to the test plots.

Does Crop Chores

This 4-H club member watched carefully as the crop grew, and helped with cultivation and irrigation. He also checked the growth and helped measure yield at harvest.

Results surprised everyone. The Norghum outyielded Ryer 15 by 500 pounds per acre. At $2.50 per hundred weight, this meant $12.50 more on each acre. A disadvantage of Norghum proved to be its later maturity.

The two seeding rates produced exactly the same yield per acre but the 24-pound rate was ready for harvest before the 12-pound one. This speed-up in harvest date with increased rate of seeding has been noted in many of the county plots.

Demonstration Is Practical

This trial was a demonstration for neighbors to view. The information added to that already gained by club members will help growers produce profitable crops.

It gave further proof to Farm Advisor Lyons (now a state extension specialist) and to farm families that 4-H Club members can carry on successfuly more tasks of an adult nature than many persons believe. No small result to the boy is the satisfaction of having given service to his community.—*End*

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During June, July, and August . . .

Plan, Prepare, Penetrate

with a sound vo-ag program

By William Paul Gray
Colorado A & M College

● THE SUMMER VO-AG PROGRAM needs careful planning. In many cases, the summer work of the instructor of vocational agriculture is often unorganized.

But the summer can be one of the most profitable periods of the year for educational work and for preparing for the year ahead. Many agriculture education supervisors and high school administrators have said the degree of success or failure among their vocational agriculture teachers is determined largely by their activities during the summer months.

With this in mind, let us examine what successful teachers do during the summer months. The successful teacher sets objectives for his summer program. He realizes the need for specific objectives. The following objectives should give the teacher purpose and direction in a summer program.

GOOD PUBLIC RELATIONS . . .
An FFA boy explains his supervised farming project to his school superintendent, vo-ag teacher, a fellow student, and two members of the local adult Advisory Council.

1. To effectively supervise the farming programs of the all-day students.
2. To follow up and carry out on-the-farm instruction to young farmers and/or adult farmers enrolled in out-of-school classes.
3. To plan and develop a program of instruction for the coming year.
4. To participate in FFA activities.
5. To maintain and further develop public relations.

Summer Activities for Vo-Ag Teachers

A. Supervising Farming Programs

1. Make regular planned on-the-farm instructional visits.
2. Make special visitation during critical periods.
3. Check record books of students.
4. Evaluate farming programs of students.
5. Conduct tour(s) of farming programs.
6. Prepare a spot map showing location of all day, young farmers, and/or adult farmers.
7. Organize and supervise prevocational farming programs of prospective students.
8. Follow-up former students.
9. Assist students in securing placement in farming.

B. Conduct and/or follow-up on out-of-school educational activities.

1. Hold regular summer meetings.
2. Make farm instructional visits to all students.
3. Conduct tours and/or excursions.
4. Plan and conduct recreational activities.
5. Attend neighboring department, district, or state meetings of out-of-school group.

C. Planning the program for next year.

1. Hold regular meeting of Advisory Council.
2. Make a community survey or study.
3. Develop a community program for vocational education in agriculture.
4. Develop or revise the long-time teaching program of work in the local department.
5. Prepare teaching plans for jobs to be taught to in- and out-of-school groups.
6. Plan definite field trips and laboratory activities for the next school year.

D. Conducting FFA Activities.

1. Hold summer chapter meetings.
2. Participate in state convention.
3. Order needed paraphernalia, supplies or equipment.
4. Attend district or state advisory meetings.
5. Construct a "Program of Work" wall board.

E. Promoting Public Relations.

1. Render community service to groups or to individuals (especially farmers).
2. Give program to service club.
3. Prepare news items for local and state press.
4. Sponsor a radio program.
5. Sponsor a TV program.
6. Prepare a community map; learn names of all farmers.

F. Improving Physical Facilities.

1. Classroom—Build or improve storage room facilities; build bulletin board; build notebook rack; sand, fill, and finish study table tops; paint classroom in color dynamics. Inventory classroom equipment and supplies; plan a new classroom layout. Prepare classroom for an impressive first day of school.
2. Agricultural Shop—Paint equipment in color dynamics; condition tools and equipment; repair benches, vises, etc.; inventory tools and equipment; order needed tools, equipment, and supplies; reorganize shop layout; prepare the shop for an impressive first day of school.

G. Developing, collecting and filing teaching aids.

1. Prepare visual aids (maps, charts and graphs).
2. Gather and mount weeds, seeds, crops, insects, plant specimens, etc.
3. Take pictures for use in teaching.
4. Order needed illustrative material.
5. Order all needed reference material; i.e., bulletins, books, etc.
6. Prepare a flannel board.
7. File reference material.
8. Revise materials in filing cabinets.
9. Prepare a long-time equipment budget.

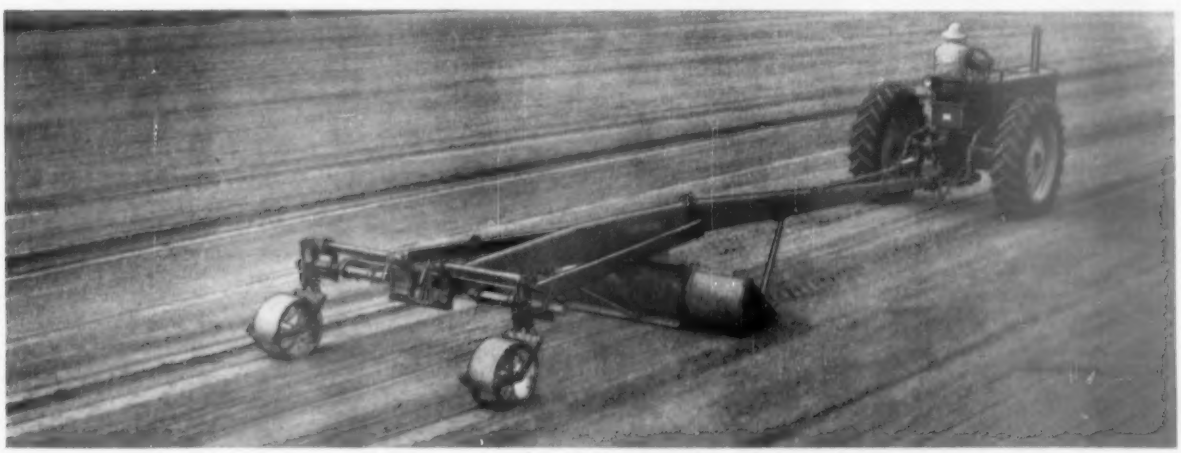
H. Contacting New Students.

(*Continued on page 62*)

Is This the New Frontier?

BY tradition, irrigation was for the West—for semi-arid plateaus and fertile valleys where spring comes cool and green, then fades and burns beneath the summer sun.

And that's just another tradition that farmers have broken to smithereens. As long ago as 1900, irrigation was being used large-scale by Louisiana rice growers. As time went on, farmers here and there began to pump from streams and ponds and wells until, in recent years, thousands have turned to sprinkling systems—east, north, southeast, and everywhere between.



WHERE there's irrigation, there's the need to level and smooth the land. One engineer summed up the trend this way: Land leveling moves east—to the Corn Belt and the Mississippi delta, to the Carolinas, to New Jersey, and Virginia.

Here then, indeed, is a new frontier—in the extension of irrigation, in the conditioning of land for better use of irrigation water, and in the adaptation of farm equipment to new tasks.

Irrigation engineers offer this word of warning. The newcomers to irrigation, if they are wise, may well consider this one big lesson from the experience of old-timers in the business: *Irrigation is wonderful, but it's no miracle.* It costs money, and it has its problems—every farmer must learn how best to adapt it to his farm, how to live with it successfully, what equipment is necessary, when to apply water, when not to, and how much.

To the men who are diligent and patient enough to find the answers to such questions, irrigation does offer tremendous possibilities. History proves that.

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BETTER FARMING METHODS
Mount Morris, Ill.

(Continued from page 60)

I. Improving Professionally.

1. Attend annual vocational agriculture instructor's workshop.
2. Attend summer school.
3. Prepare feature news article for paper or agriculture magazine.
4. Review and check agricultural magazines and/or bulletins for professional and technical ag information.
5. Review professional books in agriculture and education.
6. Review a new book on technical or practical agriculture.
7. Visit the Agricultural Experiment Station and good farms.
8. Visit other outstanding teachers of vocational agriculture.
9. Picking up needed skills or information from people in the community.

J. Participating in community activities.

1. Community or county fair.
2. Attend county ag planning committee meeting.
3. Cooperate with other agricultural agencies in community demonstrations, tours, etc.
4. Participate in sponsoring vocational agriculture exhibit, tour, etc.
5. Take active part in worthy local farmer's organizations.
6. Cooperate with worthy community clubs.

K. Keeping the administrators and supervisors informed.

1. Keep the superintendent informed of summer work activities.
2. Inform state supervisor of summer plans and work.

L. Plan and take a vacation.

6. To improve the physical facilities of the department.
7. To participate in timely and appropriate community activities.
8. To obtain needed supplies, teaching aids and replace old or out-dated ones.
9. To contact and survey prospective students.
10. To increase teaching competence through participation in a professional improvement program.
11. To develop an up-to-date library of books, bulletins, or other reference material.
12. To plan and take a vacation.

The vocational agriculture instructor who is most interested in being successful and in maintaining a complete understanding with his school administrator will plan his summer work activities as carefully and thoroughly as he plans his course of study. He will make certain these activities are listed on a weekly schedule and a copy is left on file with his administrator.

He should discuss the summer work program with his administrator and seek the approval of the administrator. He should then follow the itinerary as closely as possible.

As a help in planning your summer activities, chart the suggested summer program with a place to indicate the number of days to be spent during each of the summer months on these various work activities. Such a chart will enable you to tell at a glance the proportion of your time budgeted to each, and enable you to better plan a balanced summer program.—*End*

Statistics prove that locomotives are not afraid of automobiles.

Fred Carter, manager of the herd owned by Colonel and Mrs. S. M. Millner, Jr., Lexington, Va., saw a big difference in daily gains and extra "bloom" of hair coat after worming these good-looking steer calves with "pheno" in feed.

New worm-control practice cuts concentrate costs 25%

Even the moderate worm infections present in most cattle are costly. This was proved on the Millner farm when "pheno" was added to the regular ration of normal-looking steers. "The immediate result of worm control," says Mrs. Millner, "was increased appetite. And in only 10 days the animals showed noticeable added gains. They did marvelously—and on 25% less concentrate."

Then animals in the breeding herd were treated. "Those fed phenothiazine are getting just half as much corn in their ration as we fed last year," reports Mrs. Millner, "and they are in just as good shape as last year's group."

Worm control for your beef cattle or dairy calves can be just as easy and profitable, no matter where you farm. Many manufacturers of feed and minerals now offer products containing phenothiazine for worm control. Ask your supplier for these products. For free booklet on worm control write E. I. du Pont de Nemours & Co. (Inc.), Rm. 2533-N, Wilmington 98, Delaware.

DU PONT

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

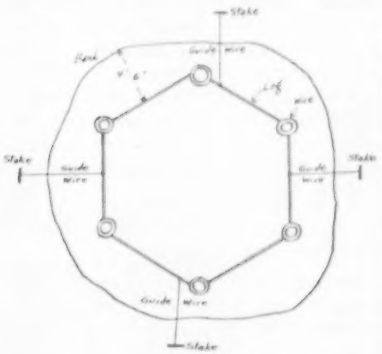
Safety Ring for Ponds

A safety ring in a farm pond will serve two purposes.

First, it can be a life saver, providing an anchored float for children or others who might accidentally fall into the pond.

Second, it will keep livestock out of the farm pond.

The idea for the safety ring was developed by former County Agent Charles W. Harris, Massachusetts. He acted after an urgent plea by a farmer's wife who wanted fences around every farm pond to prevent drownings. This safety life ring can be made



from tree poles four to six inches in diameter wired end to end to form a circle around the edge of the pond. The ring should be built and anchored from four to six feet from shore on all sides of the pond.

Place the life ring in the pond far enough from shore so that if the water level changes the life ring will still float and not rest on the dry pond sides.

Use No. 11 or 12 gauge galvanized wire to tie the legs together. Also, be certain the stakes are well anchored in the bank to prevent the ring from becoming free.

In areas where there are a number of farm ponds, here is a good project for youth and adult service groups.—*End*

★

Develop Laboratory Stomach

Speaking at the Distillers Feed Research Council, Cincinnati, Dr. O. G. Bentley, Ohio Agricultural Experiment Station, told of research on a laboratory version of the paunch or first stomach of cattle and sheep.

He described the use of laboratory flasks and various substances to simulate the digestive process in the paunch. This research work may eventually lead to cheaper meat, milk products, and woolens by revealing present unidentified nutrients or growth factors that would affect feed efficiency in simulation.

NEW! HALE Type PIR Built for *More Work* at *LOWER COST*

Above—Hale Type PIR on Trailer. Below—PIR Unit on Skids. This new low-cost Irrigation Pump uses a Chrysler 6-cylinder Industrial Engine; is compact, rugged and flexible in performance.

The PIR Pumps: 500 GPM at 100 PSI
600 GPM at 85 PSI
700 GPM at 75 PSI

NOTE: The above table shows recommended operating performance. Does NOT represent maximum performance.

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Irrigation Pumping Units Specifically Designed for Irrigation

***CIRV—1600 U.S. GPM at 65 PSI**
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***CFIR—700 U.S. GPM at 100 PSI**
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***PIR (New)—500 U.S. GPM at 100 PSI**
DXFIR—1100 U.S. GPM at 70 PSI (Diesel)
DXCIR—1300 U.S. GPM at 60 PSI (Diesel)
***WDG—300 U.S. GPM at 98 PSI**
***W—300 U.S. GPM at 66 PSI**
***FZP—(New Self-Priming)—150 U.S. GPM at 40 PSI**
***FZ—150 U.S. GPM at 46 PSI**

NOTE: Above tables show recommended operating performance; do not represent maximum.

***NP—(Self-Priming Portable)**
60 U.S. GPM free flow:
15 U.S. GPM at 40 PSI
ENP—65 U.S. GPM at 30 PSI: Electric Motor. (Single phase or 3 phase)
PNP—(Pump Only. Self-Priming pedestal mounted for power take-off, electric motor or gasoline engine.)
***Gasoline-driven. NOTE: All units above FZP come skid or trailer mounted.**

Write Dept. BF for detailed information. Please state number of acres and source of water.

IRRIGATION DIVISION

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Colorado Potato Beetle
Corn Rootworms
Cotton Boll Weevil
Cotton Fleahopper
Cotton Thrips
Cutworms
Egyptian Alfalfa Weevil
European Chafer
Eye Gnats
False Wireworms
Flea Beetles
Garden Webworm
Grasshoppers
Kafir Ant
Japanese Beetle Larvae
Lygus Bugs
Mosquitoes
Narcissus Bulb Fly
Onion Maggot
Onion Thrips
Rapid Plant Bug
Rice Leaf Miner
Salt Marsh Sand Fly
Seed Corn Maggot
Spittlebug
Strawberry Root Weevils
Strawberry Rootworms
Sugar Beet Root Maggot
Sweet Clover Weevil
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Tuber Flea Beetle
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White Fringed Beetle Larvae
White Grubs (June Beetle Larvae)
Wireworms . . .
and many others.

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Teacher's Farm Shop

Are We Being Realistic In Teaching Farm Mechanics?

By T. J. Wakeman

Teacher Trainer in Farm Mechanics
Virginia Polytechnic Institute
Blacksburg, Va.

● DO WE SPEND enough time out there on the farm to actually see what is needed in farm mechanics? Or do we go on teaching the same course year after year?

Do we look at our equipment in the light of what the student needs or do we sit back and say, "That's good enough." Are we going to make our shop an educational institution, or is it to be a "wonder" institution.

Are we training our students to develop the basic skills while doing worthwhile projects? Are we covering all the necessary areas like cold metal welding, woodwork, etc.? Or do we fall short by just teaching about one or two areas?

Keep Up-To-Date

1. *In making out our course outline and buying equipment, consider the trend of the times.*

Ask your advisory council, your school principal, and your supervisor which way to move when trends of times are considered. Ask your students' dads, what is the ultimate aim in the vocational agriculture program? Then for farm mechanics, ask him what is the aim of the farm mechanics program.

He may not use the same words for description, but when it is all added up he will tell you: "It is this: I want to learn how to keep my machinery, equipment, buildings, etc., in good maintenance, ready to use when needed, and at high sale or trade value."

Now we, as educators, can break it down to mean everything from the selection of equipment to establishing a home farm shop. Regardless of the number of jobs we name after careful analysis of this subject, the objective ends up to be the same. If the trend in the selection of materials he is using is changing from wood to masonry, let us be realistic about it.

Let us shift from buying more wood processing equipment to masonry equipment; then obtain and learn to use the equipment needed in masonry and other related areas of shop activity.

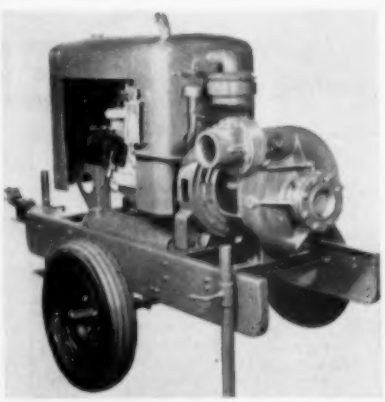
Consider Building Changes

2. *To build and repair with more substantial material is basic to each farmer.*

Most of we teachers realize that fact and are doing something about it. *Education in farm masonry is growing.* All of us have been doing something, but too little about this area of activity. Our adult farmers, young farmers, and some all-day boys are making simple constructions of masonry block. They are also pouring floors and walkways of concrete.

It is our job and a great teaching opportunity for us to help them. Too many of our students are learning the hard way—by trial and error. In many instances, they lose the first small structure and charge it to education. We can give them some basic training while in class with us and prevent the unnecessary losses. The least we can do is to supply them with an abundance of free material that gives step by step procedure in laying masonry block and pouring concrete.

Assistance for the local teacher in masonry work is always available in the community. Local school maintenance personnel, masonry block manufacturers, and cement manufacturers' representatives are among those available to the local teacher.



This is the new Marlow sprinkler irrigation pump, capable of handling 900 gallons per minute at a pressure of 75 pounds per square inch. It is fully equipped with safety controls, has a new type priming device, and is powered by a new 135 horsepower high-compression Ford engine. For more information, write to Marlow Pumps, Division of Bell & Gossett Company, Midland Park, N. J.

Metal Becomes Popular

3. *Metal is replacing wood in the maintenance and construction of farm equipment and facilities.*

Here the cold metal and sheet metal work areas of our shop are gaining ground. Whenever it is practical, wood parts of machinery are either being replaced or are being reinforced with metal.

It is difficult to find a piece of wood on most modern machinery. Inspect a picker, manure spreader, hay baler, grain drill, plow, harrow, or corn planter and count the parts made of wood. Only a few gates, feeders, and drinking troughs are not made of metal.

As previously stated, many farm buildings are being made of more substantial materials. The trend in fencing material is toward the most substantial materials because of more durability and less maintenance costs.

However, in making our course on this we must keep in mind the maintenance jobs to be done on the machinery, equipment, buildings, and fences that have been constructed of the less durable materials.

4. *School farm shops, as do home farm shops, need more metal working equipment.*

At the top of the metal working equipment stands the arc welder. Most of the necessary metal work in the repair and maintenance of farm equipment can be done with an arc welder.

How many arc welders are needed in each school? The number will depend on: (1) The number of students per class and how many boys will be learning to weld by doing practice jobs; (2) how many will be making needed projects like gates, feeders,

etc.; (3) how many will need welding facilities for the repair of farm machinery; and (4) the ability of the local teacher to widen the use of his arc welder.

Check Welder Size

What size welder? Considering the progressive development in the manufacture of electrodes for better welds and easier teaching, more and more heat amperage is needed. If you think your 250 amp. machine is big enough, get a new electrode for fillet welding and try to form a presentable head that will hold.

A 300 amp. machine of the AC type is the smallest machine satisfactory for the arc welding jobs done in school to meet the training needs of the farm.

What about the home farm welder with its limitations? The students will learn at school to do the jobs he cannot do on his farm welder and make arrangements to do or have those jobs done elsewhere.

Consider Power Hack Saw

How many acetylene welders to a school? One to each two or three arc welders or a minimum of two.

It is difficult to schedule the use of one machine in a rotating teaching schedule unless it is paired with another area of work like the forge. Seldom should more than one student be placed on a machine unless each new student is directed by the one ahead of him in the schedule.

A power hack saw of at least four by six inch capacity is needed. This reduces sawing time and encourages better workmanship and more metal work.

Make available power grinders with ample powered wire brushes to clean metal before and during welding. Both stationary and portable grinders and brushes are necessary in addition to the conventional hand metal working equipment.

Take Time for Jobs

5. *In scheduling and in planning your course, allow adequate time to do each job well.*

Do a few jobs well rather than do many jobs half way. Make the home farm shop a part of a continuous school shop education program. Plan the program so the proper repair, adjustment and maintenance of farm equipment is the main outcome of your course.

Encourage the student to develop ability in following the printed page of instructions in an effort to make him self-reliant.—*End*

Farmers Report
Paper Feed Sacks Save Time, Labor

"A fraction of an ounce of feed left in a bag, in a volume operation, amounts to a lot in a year's time. We prefer the fifty-pound paper package to bulk delivery because it permits an accurate check of daily feed consumption. The sacks are easy to handle and supplemental feeding, medicating or de-worming is much more convenient with the 'fifties'." *Ned W. Christenbury, Manager, Lowder Poultry Farms, Albemarle, North Carolina.*

"Feed in fifty-pound paper sacks is more convenient to handle and keeps better. It empties with no loss of grain sticking to sacks. We would be delighted to receive all of our grain in fifty-pound paper." *William E. Reed, Herd Manager, Winterthur Farms, Winterthur, Delaware.*

"We like paper sacks because they are easy to handle and the feed empties out clean and easy into the hoppers. Also, the sacks haven't been on another farm." *Joe Seck, Brunswick, Missouri, markets 1,000-1,200 purebred Hampshires annually.*

Case histories courtesy of Paper Shipping Sack Manufacturers' Association, 370 Lexington Ave., New York 17, N. Y.

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For What It's Worth

By HERBERT L. SCHALLER, Editor

Which!

The two kinds of people, on earth I mean, are the people who lift and the people who lean. Wherever you go you will find the world's masses are always divided in just these two classes. And, oddly enough, you will find, too, I ween, there is only one lifter to 20 who lean.

In which class are you? Are you easing the load of overtaxed lifters who toil down the road? Or are you a leaner, who lets others bear your portion of labor and worry and care?

Most ag leaders are lifters. And certainly it is important for them to lift rather than lean. Working with young people in and out of school, leaders can do such youngsters a great service by *teaching* them to lift, and *then showing them how to do it.*

For in the life of every man, there comes a time when he must pull himself up by his own bootstraps. And this takes lifting.

So be sure you are the one—and not of the 20.

Old—but Appropriate

Human nature, being what it is, insists all of us travel the road of criticism at frequent intervals. At some time or another, we seem to delight in picking out the faults of others, particularly those over, above, and older than we.

Our school kids are particularly adept these days in ridiculing and criticizing their elders and their teachers. *In too many cases, they get this habit from observing their elders.*

Remember this old story about ridicule? It's about the seminary students who decided to have some fun at the expense of an old professor who wore a full beard. Seeing him approaching one day, they conferred a moment, and as he drew up to them, one young man doffed his hat and said, "Good morning, father Abraham."

The second did likewise, but said, "Good morning, father Isaac."

And the third following with, "Good morning, father Jacob."

The old man stopped, removed his own hat, bowed, and said, "Thank you, young gentlemen, but I see you have made a mistake in identity. I am not Abraham, I am not Isaac, I am not even Jacob. I am Saul, the son of Kish, sent to find my father's asses. Lo and behold, I have found them!"

The old professor was kind. He pointed out to these young men just how long their ears really were.

But all the people we encounter are not as kind. They politely keep still and move off—*letting us continue to make fools of ourselves while glorying under the false impression that we are wise and smart.*

We Admire Him

He has been called a dictator, czar, and all manner of other names. He has been reviled, ridiculed, and painted as downright stupid.

The man we refer to is Secretary Benson. *In the next breath, let me say I still admire, support, and believe that he has done as good a job with the overwhelming problems in agriculture as any man I know.*

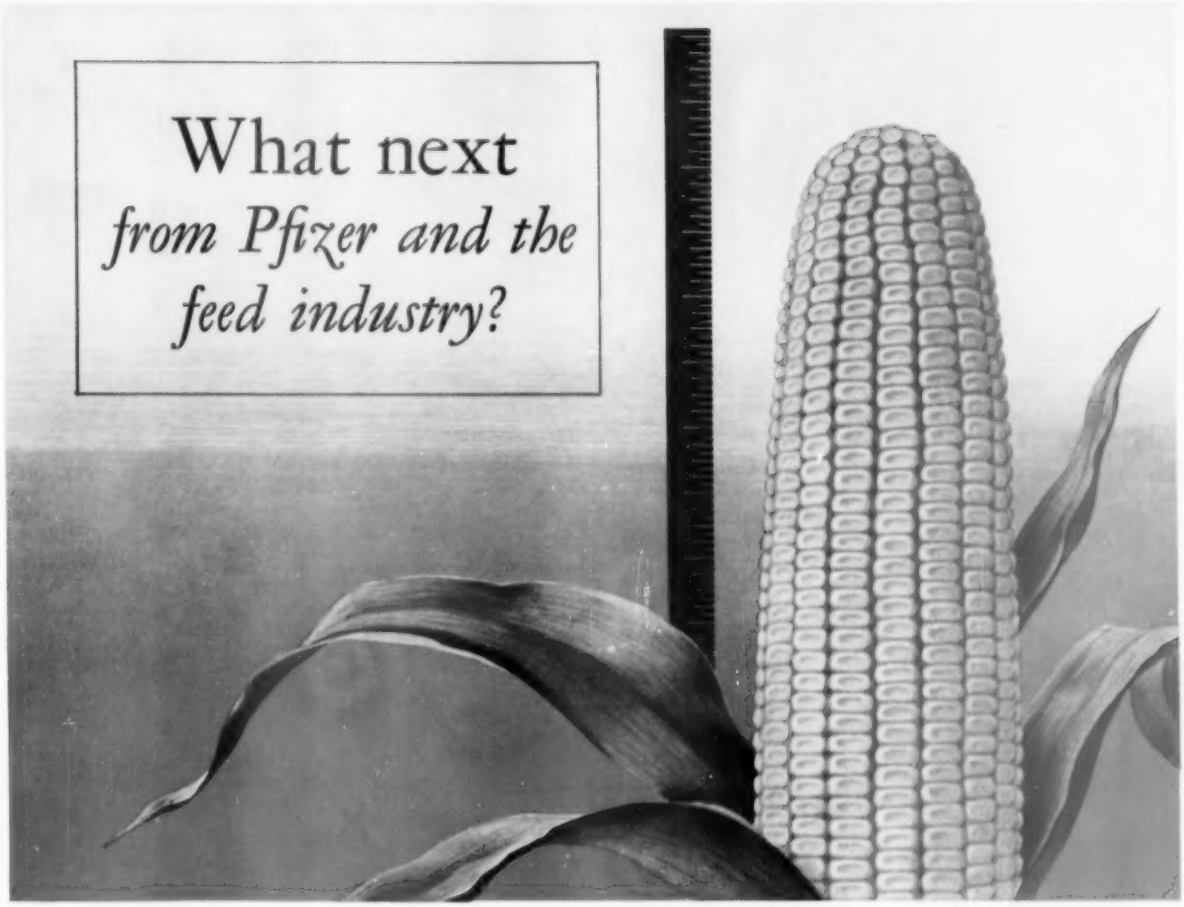
Of one thing I am sure: His most volatile opponents could not occupy his seat. They have neither the courage, ability, or patience required to administer the programs, passed by a multitude of hosts, and designed primarily to solve the farmer's problem to the personal satisfaction of each host.

Such critics who make the headlines with screaming statements, all bordering on the hysterical approach to man's basic emotion, fear, have only revealed their own true selves.

I admire Secretary Benson for his religious convictions, principles, integrity, and steadfast adherence to those things in which he believes.

America needs more people in agriculture that will not be swayed by the expediency of the moment.

HLSchaller



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Since this new substance was discovered at the Pfizer Agricultural Research and Development Farm in Vigo County, Indiana, it was called "The Vigo Factor" or trademarked "Vigofac" for short.

These benefits of scientific research are brought to you by America's progressive feed companies in complete feeds and in concentrates, which, when added to your home-grown grains, add "inches of feed value" to every ear of corn.

What next from Pfizer—and your feed man? Whatever it is, you can bet your boots it will help to increase your income and shorten your feeding time still further.

Science comes to the farm in a feed bag.

Pfizer

Pfizer Agricultural Research and Development Department

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6 You farm better with **-SIOUX-** Feed-A-Round feeders because the extra-heavy 14-gauge lids are 25 per cent stronger.

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